

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6743

*Kualoa Ranch
Communication Site*

JEREMY HARRIS
MAYOR



June 26, 1998

RECEIVED JAN NAOE SULLIVAN
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

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98/SMA-26(DT)

DEPT. OF LAND UTILIZATION
QUALITY CONTROL

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
State Office Tower, Room 702
235 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Gill:

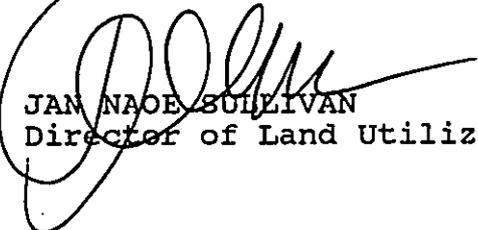
SPECIAL MANAGEMENT AREA ORDINANCE
CHAPTER 25, ROH
Environmental Assessment (EA)/Determination
Finding of No Significant Impact

Recorded Owner : Kualoa Ranch, Inc.
Applicant : Western PCS II Corporation
Agent : Analytical Planning Consultants, Inc.
Location : 49-560 Kamehameha Highway, Kualoa, Oahu
Tax Map Key : 4-9-4: por. 2
Request : Special Management Area Use Permit
Proposal : Install an antenna transmitter/receiver
site at Kualoa Ranch
Determination : A Finding of No Significant Impact is
Issued

Attached and incorporated by reference is the Final EA prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final EA. If you have any questions, please contact Dana Teramoto of our staff at 523-4648.

Very truly yours,


JAN NAOE SULLIVAN
Director of Land Utilization

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1998-07-23-0A- FEA- Kualoa Ranch
Communication Site

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FINAL ENVIRONMENTAL ASSESSMENT
FOR A COMMUNICATIONS SITE AT KUALOA RANCH

BACKGROUND

Western PCS II Corporation is in the process of establishing a cellular telephone system on Oahu under a permit issued by the Federal Communications Commission (FCC). One of the proposed transmitter/antenna sites is Kualoa Ranch at 49-560 Kamehameha Hwy. in Kaaawa. (TMK: 4-9-4-002). The installation will be used to facilitate wireless telephone communications and paging in the Kualoa/Kahaluu area.

The proposed site is located in an area that is listed on the National Historical Register and on the Hawaii State Register, hence, under Chapter 343 HRS, an Environmental Assessment (EA) must be submitted for review.

DESCRIPTION OF THE PROPOSED PROJECT

The installation will consist of a cellular telephone antenna transmitter/receiver facility providing wireless telephone communications for public benefit. Under the Hawaii Administrative Rules, the proposed Western PCS II antenna site qualifies as a public purpose communications system - a land use undertaken by a non-governmental entity which benefits the public - and is classified as a public utility.

The proposed site for the installation is the location of Kualoa Ranch, a tourist attraction and cattle ranch. The Western PCS II antennas will be located on Kualoa Ranch property off the "mauka" (corrected from "makai") side of Kamehameha Highway approximately 900 feet in the Kaneohe direction from the Kualoa Beach Park maintenance yard. The site will be set back approximately 90 feet from the road behind a line of tall trees and dense foliage.

The antennas are of two types; panel and parabolic grid. The panel antennas are approximately six inches wide, five feet long and two inches thick. One each of these panels will be mounted on the ends of two sets of 5 ft. long extension pipes at the top of a 29 ft., 8.75 in. tall, 18 inch diameter monopole, for a total of two antenna panels. The parabolic grid antenna is approximately four feet in diameter and eleven inches deep. One of these antennas will be flush mounted on the monopole such that the bottom of the parabolic dish is 17 feet above the ground.

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The antennas and monopole will be painted to blend with the surrounding environment.

One micro BTS equipment cabinet, approximately two feet long, three feet high, and eight inches wide, and one microwave equipment cabinet, approximately 2.5 feet long, three feet high, and two feet wide, will be mounted on the ground adjacent to the monopole. They will be painted to blend with the environment and the equipment cabinets and monopole will be surrounded by a six foot tall chain link fence to prevent unauthorized access.

Access to the installation will be from an existing dirt access road that runs between the site and Kamehameha Highway.

AFFECTED ENVIRONMENT

The area affected is the enclosed antenna and equipment cabinet area.

IMPACTS AND ALTERNATIVES CONSIDERED

a. Impacts:

Visual

The primary impact of the installation will be the visual impact of the monopole.

Grading

The immediate area where the equipment cabinets and antennas will be located area is generally flat, however some grubbing and leveling will be needed to accommodate the foundation on which they will be installed.

Radiated Energy

Minimum allowances for radiated energy from the antennas will meet or exceed federal standards.

Historic Site

In 1973 the Hawaii Register of Historic Places applied for and was granted a listing on the National Historic Register for the entire Kualoa ahupua'a - an area of land running from the coast to the top of the mountains from Kualoa Point to Kaaawa Stream beyond Lae o Ka Olio Point. The area is considered historically significant in Hawaiian tradition

and folklore.

b. Alternatives

Other possible sites for the antenna installation within the Kualoa area were considered. They were rejected in favor of the proposed site for the following reasons:

1. They were in undeveloped areas of the conservation district.
2. They were in previously developed areas but would have been more visually intrusive, requiring antenna poles upwards of 100 feet high.
3. Electrical power was not readily available.
4. A land line telephone connection into the Hawaiian Telephone system was not readily available.
5. Other locations did not provide the opportunity to service the entire Kualoa area from a single site, thereby minimizing the cumulative impact of multiple installations.
6. Other carriers have applied to the city to locate facilities within the Kualoa Beach Park maintenance yard on the makai side of Kam. Highway, but were denied.

Because of the island's unique geology and the extensive boundaries of the Kualoa ahupua'a (which run from the ocean to the mountains) it is not possible to locate the site anywhere other than within the ahupua'a.

If the project is not constructed it will not be possible for Western PCS II Corp. to properly serve the Kualoa area or to supply continuous communications coverage as users transition between Kualoa and Kahaluu/Ahuimanu. The FCC does not permit the denial of wireless services to the public because carrier access to an entire area has been denied.

The telephone systems involved serve a community function as public utilities by supplying needed portable communications for public use. In addition to assisting the general public and businesses the systems will provide essential communications in

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the event of disaster such as a hurricane or tsunami.

The ability for real time portable communications will assist greatly in providing a safe environment for the residents of and visitors to the Kualoa/Kahaluu area. The ability to call for assistance immediately, during the day or at night, will contribute to the physical and mental well being of those who live and visit there.

MITIGATION MEASURES

Visual

To minimize visual impacts, the area chosen for the site is screened by tall trees and dense vegetation. Due to this placement, the monopole will be completely screened from most views up and down Kamehameha Highway. At only one point will the monopole be easily visible between a break in the trees, and at this point, only the top of the monopole will be visible protruding above the foliage. Thus, any impact on the natural skyline will be minimal. The antennas and monopole will also be painted to further blend with the surrounding environment. And although the equipment cabinets will be completely hidden from view, they will also be painted to blend with their surroundings.

Grading

All construction will be done utilizing "best management practices". This means that there will be no runoff from the small amount of grubbing and grading that will be required to prepare the site for the pads for the antennas and equipment cabinets.

Radiated Energy

The radiation exclusion distance for this antenna is 7.2 feet. Since this contour will be well above the height of anyone passing the site due to the height of the installation, there will be no impact.

Historic Site

According to the Hawaii Register of Historic Places, few physical remains still exist at Kualoa due to sugar cane and World War II Army Air Force operations, and vegetation is generally that which was generated after the 1940's. It is believed that some remains may yet exist up in the foothills of the mountains where native vegetation can still be found in narrow gullies.

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To minimize historical site impacts, the site chosen for the installation is on the edge of the Kualoa Ahupua'a. It will be located off Kamehameha Highway near the southwest boundary of the ahupua'a, approximately 900 feet to the south of the Kualoa Beach Park maintenance yard. The site is far removed from any areas of potential archaeological significance and is not in an area that may contain any endangered native vegetation or animals. The site is also not pristine in nature. It has been previously developed and has a dirt road access.

Security & Maintenance

The installation itself will be secured from the public and will only be accessible to maintenance personnel. The installation will require minimal maintenance, thereby posing no additional or ongoing impact to the environment.

COMMENTS RECEIVED ON THE DRAFT ENVIRONMENTAL ASSESSMENT

The draft EA was published in the April 23, 1998 OEQC Bulletin. Copies of the EA were submitted for review and comment to the OEQC, Kahaluu Neighborhood Board, and the State of Hawaii Departments of Planning and DLNR. Comments from the Office of Hawaiian Affairs were also submitted. The following comments were received and responded to:

1. OEQC

- a) "Consult with State Historic Preservation Division, OHA regarding the possibility of cultural remains on the property, and notify the nearest neighboring landowners of the project. Document all contacts made and include copies of any correspondence."

COMMENT

Copies of the DEA were sent to the State Historic Preservation Division of the DLNR, Office of Hawaiian Affairs (OHA), State Department of Business, Economic Development & Tourism, the Department of Land and Natural Resources, and the Kahaluu Neighborhood Board. Their comments and the responses are included in the Final Environmental Assessment.

There are no immediate landowners or neighbors in the vicinity except for the City and County of Honolulu which is processing the application and Kualoa Ranch who is the owner of the property and is leasing the site to Western PCS II.

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There are no cultural remains on the property being leased by Western PCS II.

- b) "Anticipated start and end dates for this project."

COMMENT

Once approval is received anticipated start date will be immediate. The completion date is approximately six to eight weeks.

- c) "Include a discussion of findings and reasons, according to the significance criteria listed in HAR Title 11-200-12, that support the anticipated Finding of No Significant Impact (FONSI) determination."

COMMENT

These points are discussed below as part of the FEA.

- d) "List all required permits and approvals for this project and the status of each."

COMMENT

A Conditional Use Permit Type One for a Utility Installation Type B has been applied for from the City and County of Honolulu Department of Land Utilization. A building permit must be approved by the City Building Department. No application has been made at this time.

- e) "If the facility location is indeed mauka of the highway, please correct this in the final EA."

COMMENT

This has been corrected - the proposed facility is mauka of the highway not maikai as incorrectly stated in the specified section of the DEA.

2. KAHALUU NEIGHBORHOOD BOARD

The Kahaluu Neighborhood Board reviewed the proposal for the communications site on Kualoa Ranch at their May 13, 1998 meeting. Neither the applicant or the Agent were notified of the hearing date hence were not in attendance. A Board member suggested that the Board

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should oppose the project until the DLU has a master plan with a master map, covering all frequencies and possible sites. The city representative stated that the city would not be able to produce that kind of specialized frequency coverage. A motion to recommend that the DLU consider withholding support for the proposed Kualoa Ranch antenna site or any other antenna site until the development of a master site plan failed to pass.

3. STATE OF HAWAII DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM, OFFICE OF PLANNING

"The proposed installation will be situated near several historic sites, including the ridge of Puu Kanehoalani. Therefore, the State Historic Sites Division of DLNR should be consulted to assure that important resources are identified and protected."

COMMENT

The State Historic Sites Division of DLNR was contacted and their comments are included in the FEA below.

4. STATE OF HAWAII DEPARTMENT OF LAND & NATURAL RESOURCES, STATE HISTORIC PRESERVATION DIVISION.

"There are no known archaeological sites in the project area. There are a number of natural formations on the nearby mountain ridges that have legendary cultural significance. This project is almost completely screened by tall trees and dense vegetation thus it should have little or no visual impact...If historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted."

COMMENT

If any historic sites are uncovered during construction of the communication installation all work will be stopped and the State Historic Preservation Division will be contacted.

5. OFFICE OF HAWAIIAN AFFAIRS

"OHA urges the applicant to review the DEA and address

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concerns regarding the visual intrusive nature of the proposed development...Kualoa is one of the most sacred places in Oahu and native Hawaiians vehemently oppose any attempt to alter places which in the past have played an essential role in the life of their ancestors and are presently a source of religious and spiritual guidance. OHA urges the applicant to seek immediate consultation with Native Hawaiians to address this unresolved issue."

COMMENT

The ahupua'a is so large that any antenna site which could service the area would need to be located within the ahupua'a boundaries. Because of the topography of the area it is not possible to provide continuous service in the area with sites outside of the ahupua'a.

With regard to the comment on the visual intrusiveness of the site, the applicant reviewed a number of sites in the Kualoa area and chose this site, in part, because it would not be materially visually intrusive to residents, park users, visitors to the Kualoa Ranch, and motorists traveling on Kam Highway.

We recognize that, when it can be seen, the orange balloon used in the visual impact analysis is visually intrusive, however this was intentional so that the height and location of the proposed antenna could be seen in the photographs. The antenna to be installed will be painted with camouflage earth tones which will make the antenna structure blend in with the mountain background and the trees around the site.

The applicant recognizes and respects the historic and sacred significance of the Kualoa ahupua'a to the Native Hawaiians. It was our understanding that while much of the ahupua'a was used in pre-historic times for social, cultural and agricultural activities that the mountain slopes and ridges are the areas with legendary cultural significance. The communications site is located a long way from the mountain slopes.

The ahupua'a is very large, extending from the mountain ridges to the ocean and includes the Kualoa Beach Park and most of the Kualoa Ranch property. Thus, much of the area has transitioned into modern times and is in use by the community for a number of social, cultural and recreational uses. The antenna site is only 400

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square feet in area. It was felt, that in comparison with the total ahupua'a that the site would not represent a material change to the existing status or significance of the area. It is not the applicants intent by constructing the site, to detract from the significance of what the total ahupua'a' represents as a place.

The applicant would welcome the opportunity to give the site a Hawaiian blessing if this is considered to be appropriate.

DETERMINATION AND REASONS SUPPORTING THE DETERMINATION

The proposed project would not have a significant effect on the environment and therefore preparation of an environmental impact statement is not required. The "significance criteria," Section 12 of Hawaii Administrative Rules Title 11, Chapter 200, "Environmental impact Statement Rules," were reviewed and analyzed. Based on the analysis, the following were concluded:

1. No irrevocable commitment to loss or destruction of any natural or cultural resource would result.

All construction is located in previously disturbed land close to Kam Highway and no natural of cultural resources are present.

2. The action would not curtail the range of beneficial uses of the environment.

The project will occupy only a very small area of land (400 sq. ft.) non of which is currently in any significant environmental use.

3. The proposed action does not conflict with the state's long term environmental goals and guidelines.

Conservation of natural resources and enhancement of the quality of life are the two broad policies of the "State Environmental Policy" in Chapter 344 of the Hawaii Revised Statutes. The proposed project does not consume any natural resources. It will enhance the quality of life by enabling residents to communicate by telephone while transiting between Kaneohe and Punaluu. The system will provide essential communications in the event

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communications for stranded motorists. The ability to call for assistance will contribute to the safety, and the physical and mental well being of those who must travel on this portion of the island, especially at night.

4. The economic or social welfare of the community or state would not be substantially affected.

The economic and social well being of the community will be enhanced by the increase in communication services that will be provided by this system.

5. The proposed action does not substantially affect public health.

There is no public health impact caused by this system. The radiated power for the antenna system is 61 watts. This is equivalent to the radiation emitted by standard household electric light bulbs. The exclusion distance for the Land Use Ordinance allowable power for human contact of 0.1 milliwatts per square centimeter is 7.2 feet. The antennas are located at the top of a 30 foot monopole hence there is no hazard to persons in the area. Further, the Federal standards for human radiation tolerance is 0.5 milliwatts per square centimeter which is five times that allowed by the LUO.

6. No substantial secondary impacts, such as population changes or effects on public facilities, are anticipated.

Provision of the communication services made possible by this installation will have no impact on population changes or public facilities.

7. No substantial degradation of environmental quality is anticipated.

No degradation of the environment is anticipated. There are several existing utility poles in the near vicinity as seen in the visual analysis. The site will be almost totally hidden from view by trees and foliage.

8. The proposed action does not involve a commitment to larger actions, nor would cumulative impacts result in

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considerable impacts on the environment.

The project is self contained and independent of other installations and facilities in the area hence there will be no cumulative impacts.

9. No rare, threatened or endangered species or their habitats would be affected.

The area involved with this project is very small and there are no endangered or threatened species or their habitats on this section of the property.

10. Air quality, water quality, or ambient noise levels would not be detrimentally affected.

In operation this is a passive facility. It does not impact air quality nor does it use water. The only noise generated is from the operation of the fans cooling the electronic equipment cabinets which will be much less than the noise of the vehicles transiting Kam Highway.

11. The project would not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.

The project area is not on or near any of the above areas of concern.

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BENJAMIN J. CAYETANO
GOVERNOR



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

April 29, 1998

Jan Naoe Sullivan, Director
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Attention: Dana Teramoto

Dear Ms. Sullivan:

RE: Draft Environmental Assessment (EA) for Kualoa Ranch Communication Site, Kaaawa

We have the following comments to offer:

1. **Contacts:** Consult with the State Historic Preservation Division of the Department of Land and Natural Resources regarding this activity in this historic district (Kualoa Ahupuaa). Consult with the Office of Hawaiian Affairs regarding the possibility of cultural remains on the property. List state and county agencies contacted, and notify the nearest neighbors or neighboring landowners of the proposed project, allowing all contacts sufficient time to review the draft EA and submit comments. Document all contacts in the final EA and include copies of any correspondence.
2. **Timing:** What are the anticipated start and end dates of this project?
3. **Significance criteria:** Include a discussion of findings and reasons, according to the significance criteria listed in HAR Title 11-200-12, that support the anticipated Finding of No Significant Impact (FONSI) determination.
4. **Permits:** List all required permits and approvals for this project and the status of each.
5. **Location:** The section of the draft EA entitled "Description of the Proposed Project" lists the location as, "...off the makai side of Kamehameha Highway approximately 900 feet in the Kaneohe direction from the Kualoa Beach Park maintenance yard." If the facility location is indeed mauka of the highway, please correct this in the final EA.

If you have any questions call Nancy Heinrich at 586-4185.

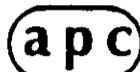
Sincerely,

A handwritten signature in black ink, appearing to read "Gary Gill".

Gary Gill
Director

c: Donald Clegg

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PHONE (BUS): (808) 536-5695
FAX: (808) 599-1553

ANALYTICAL PLANNING CONSULTANTS, INC.
928 NUUANU AVENUE, SUITE 502 • HONOLULU, HI 96817

June 8, 1998

Mr. Gary Gill, Director
State of Hawaii Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Gill,

Thank you for responding to the Environmental Assessment which was submitted to the Department of Land Utilization for the proposed Western Wireless Antenna Site at Kualoa Ranch (TMK: 4-9-4:002). Your letter and our comments, as outlined below, have been included in the Final Environmental Assessment.

- a) "Consult with State Historic Preservation Division, OHA regarding the possibility of cultural remains on the property, and notify the nearest neighboring landowners of the project. Document all contacts made and include copies of any correspondence."

COMMENT

Copies of the DEA were sent to the State Historic Preservation Division of the DLNR, Office of Hawaiian Affairs (OHA), State Department of Business, Economic Development & Tourism, the Department of Land and Natural Resources, and the Kahaluu Neighborhood Board. Their comments and the responses are included in the Final Environmental Assessment.

There are no immediate landowners or neighbors in the vicinity except for the City and County of Honolulu which is processing the application and Kualoa Ranch who is the owner of the property and is leasing the site to Western PCS II.

There are no cultural remains on the property being leased by Western PCS II.

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- b) "Anticipated start and end dates for this project."

COMMENT

Once approval is received anticipated start date will be immediate. The completion date is approximately six to eight weeks.

- c) "Include a discussion of findings and reasons, according to the significance criteria listed in HAR Title 11-200-12, that support the anticipated Finding of No Significant Impact (FONSI) determination."

COMMENT

These points are discussed below as part of the FEA.

- d) "List all required permits and approvals for this project and the status of each."

COMMENT

A Conditional Use Permit Type One for a Utility Installation Type B has been applied for from the City and County of Honolulu Department of Land Utilization. A building permit must be approved by the City Building Department. No application has been made at this time.

- e) "If the facility location is indeed mauka of the highway, please correct this in the final EA."

COMMENT

This has been corrected - the proposed facility is mauka of the highway not maikai as incorrectly stated in the specified section of the DEA.

If you have any further comments or questions please contact me at 536-5695.

Sincerely,



Donald Clegg
President

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**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

BENJAMIN J. CA
GO
SEIJI
D
BRADLEY J. MC
DEPUTY D
RICK
DIRECTOR, OFFICE OF P

OFFICE OF PLANNING

235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-
Fax: (808) 587-

Ref. No. P-7402

April 27, 1998

Ms. Jan Naoe Sullivan
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Ms. Sullivan:

Subject: Kualoa Ranch Personal Communication System, Environmental Assessment
Project within a Historic Site, TMK 4-9-4:por. 2, on Oahu

The proposed installation of an antenna transmitter/receiver will be situated near several historic sites, including the ridge of Puu Kanehoalani. Therefore, the State Historic Sites Division of the Department of Land and Natural Resources should be consulted to assure that important historic resources are identified and protected.

If you have any questions, please contact Christina Meller of our Coastal Zone Management Program at 587-2845.

Sincerely,

Rick Egge
Director
Office of Planning

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PHONE (BUS): (808) 536-5695
FAX: (808) 599-1553

ANALYTICAL PLANNING CONSULTANTS, INC.
928 NUUANU AVENUE, SUITE 502 • HONOLULU, HI 96817

June 8, 1998

Mr. Rick Egged, Director
State of Hawaii Office of Planning
P.O. box 2359
Honolulu, Hawaii 96813

Dear Mr. Egged,

Thank you for responding to the Environmental Assessment which was submitted to the Department of Land Utilization for the proposed Western Wireless Antenna Site at Kualoa Ranch (TMK: 4-9-4:002). Your letter and our comments, as outlined below, have been included in the Final Environmental Assessment.

"The proposed installation will be situated near several historic sites, including the ridge of Puu Kanehoalani. Therefore, the State Historic Sites Division of DLNR should be consulted to assure that important resources are identified and protected."

COMMENT

The State Historic Sites Division of DLNR was contacted and their comments were as follows:

"There are no known archaeological sites in the project area. There are a number of natural formations on the nearby mountain ridges that have legendary cultural significance. This project is almost completely screened by tall trees and dense vegetation thus it should have little or no visual impact...If historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted."

If you have any further comments or questions please contact me at 536-5695.

Sincerely,

A handwritten signature in black ink that reads "Donald Clegg". The signature is written in a cursive, flowing style.

Donald Clegg
President

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BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM

AQUATIC RESOURCES
CONSERVATION AND

RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION

DIVISION
LAND DIVISION
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

May 15, 1998

Jan Naoe Sullivan
Director of Land Utilization
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawai'i 96813

LOG NO: 21316 ✓
DOC NO: 9805NN02

Dear Ms. Sullivan:

Thank you for your letter of April 1, 1998, concerning the installation of the Kualoa Ranch Personal Communication System at 9-560 Kamehameha Highway, Kualoa, Oahu; TMK: 4-9-4:02.

There are no known archaeological sites in the project area. The only known historic sites are upslope of this area. These sites were built during historic times for ranch use.

There are a number of natural formations on the nearby mountain ridges that have legendary cultural significance. This project is almost completely screened by tall trees and dense vegetation thus it should have little or no visual impact on the aforementioned legendary sites.

However, in the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 587-0047.

Aloha,

Don Hibbard, Administrator
Historic Preservation Division

NN:jk

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PHONE (BUS): (808) 536-5695
FAX: (808) 599-1553

ANALYTICAL PLANNING CONSULTANTS, INC.
928 NUUANU AVENUE, SUITE 502 • HONOLULU, HI 96817

June 8, 1998

Mr. Ron Hibbard, Administrator
Historic Preservation Division
Department of Land and Natural Resources
33 South King Street, The Floor
Honolulu, Hawaii 96813

Dear Mr. Hibbard,

Thank you for responding to the Environmental Assessment which was submitted to the Department of Land Utilization for the proposed Western Wireless Antenna Site at Kualoa Ranch (TMK: 4-9-4:002). Your letter and our comments, as outlined below, have been included in the Final Environmental Assessment.

"There are no known archaeological sites in the project area. There are a number of natural formations on the nearby mountain ridges that have legendary cultural significance. This project is almost completely screened by tall trees and dense vegetation thus it should have little or no visual impact...If historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted."

COMMENT

If any historic sites are uncovered during construction of the communication installation all work will be stopped and the State Historic Preservation Division will be contacted.

If you have any further comments or questions please contact me at 536-5695.

Sincerely,

A handwritten signature in cursive script that reads 'Donald Clegg'.

Donald Clegg
President

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98-0350



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813-5249
PHONE (808) 594-1888
FAX (808) 594-1885

May 11, 1998

Mrs. Jan Sullivan
Department of Land Utilization
City & County of Honolulu
650 S. King Street, 7th Floor
Honolulu, HI 96813

Doc. EIS No. 177

Subject: Draft Environmental Assessment (DEA) for a Communication Site at
Kualoa Ranch, Island of Oahu

Dear Mrs. Sullivan:

Thank you for the opportunity to review the Draft Environmental Assessment (DEA) for Communication Site at Kualoa Ranch, Island of Oahu. The applicant proposes to install two cellular telephone antennas, approximately 30 feet tall, on the edge of the Kualoa ahupua'a. According to the applicant, the antennas will be located in a remote area far from any existing archaeological resource which does not contain threatened or endangered species.

The Office of Hawaiian Affairs (OHA) has reviewed the DEA and finds the document somewhat superficial in describing the scope of the proposed development. The document simply fails to address potential adverse impacts of the antennas on the natural scenery. In fact, the pictures in the DEA add very little to dispel the view that these antennas may become an aesthetic blemish on an otherwise exquisite area. OHA urges the applicant to review the DEA and address concerns regarding the visual intrusive nature of the proposed development.

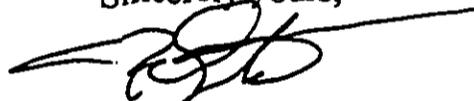
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Letter to Mrs. Jan Sullivan
May 11, 1998
Page 2

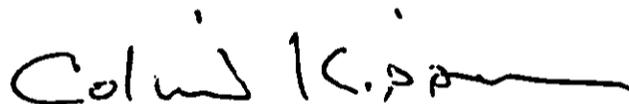
There is one important issue which is not even mentioned in the DEA. And this is related to the sacredness of the Kualoa ahupua'a. Kualoa is one the most sacred places in Oahu and Native Hawaiians vehemently oppose to any attempts to alter places which in the past have played an essential role in the life of their ancestors and are presently a source of religious and spiritual guidance. OHA urges the applicant to seek immediate consultation with Native Hawaiians to address this unresolved issue.

Please contact Colin Kippen (594-1938), LNR Officer, or Luis Manrique (594-1758), should you have any questions on this matter.

Sincerely yours,



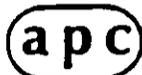
Randall Ogata
Administrator



Colin Kippen
Officer,
Land and Natural
Resources Division

cc: Board of Trustees
OEQC

0000 0006 1135



PHONE (BUS): (808) 536-5695
FAX: (808) 599-1553

ANALYTICAL PLANNING CONSULTANTS, INC.

928 NUUANU AVENUE, SUITE 502 • HONOLULU, HI 96817

June 6, 1998

Mr. Colin Kippen, Officer
Land and Natural Resources Division
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Blvd. Suite 500
Honolulu, HI 95813

Dear Mr. Kippen

We have received the comments from OHA on the Environmental Assessment (EA) to construct a PCS Communications site at the Kualoa Ranch. The ahupua'a is so large that any antenna site which could service the area would need to be located within the ahupua'a boundaries. Because of the topography of the area it is not possible to provide continuous service in the area with sites outside of the ahupua'a.

With regard to the comment on the visual intrusiveness of the site, the applicant reviewed a number of sites in the Kualoa area and chose this site, in part, because it would not be materially visually intrusive to residents, park users, visitors to the Kualoa Ranch, and motorists traveling on Kam Highway.

We recognize that, when it can be seen, the orange balloon used in the visual impact analysis is visually intrusive, however this was intentional so that the height and location of the proposed antenna could be seen in the photographs. The antenna to be installed will be painted with camouflage earth tones which will make the antenna structure blend in with the mountain background and the trees around the site.

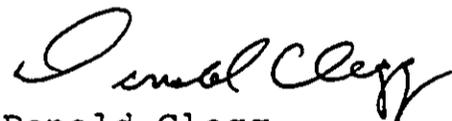
The applicant recognizes and respects the historic and sacred significance of the Kualoa ahupua'a to the Native Hawaiians. It was our understanding that while much of the ahupua'a was used in pre-historic times for social, cultural and agricultural activities that the mountain slopes and ridges are the areas with legendary cultural significance. The communications site is located a long way from the mountain slopes.

0000 0006 1136

the ocean and includes the Kualoa Beach Park and most of the Kualoa Ranch property. Thus, much of the area has transitioned into modern times and is in use by the community for a number of social, cultural and recreational uses. The antenna site is only 400 square feet in area. It was felt, that in comparison with the total ahupua'a that the site would not represent a material change to the existing status or significance of the area. It is not the applicants intent by constructing the site, to detract from the significance of what the total ahupua'a' represents as a place.

The applicant would welcome the opportunity to give the site a Hawaiian blessing if this is considered to be appropriate.

Sincerely,



Donald Clegg
President

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DECIBEL PRODUCTS ALLEN TELECOM GROUP

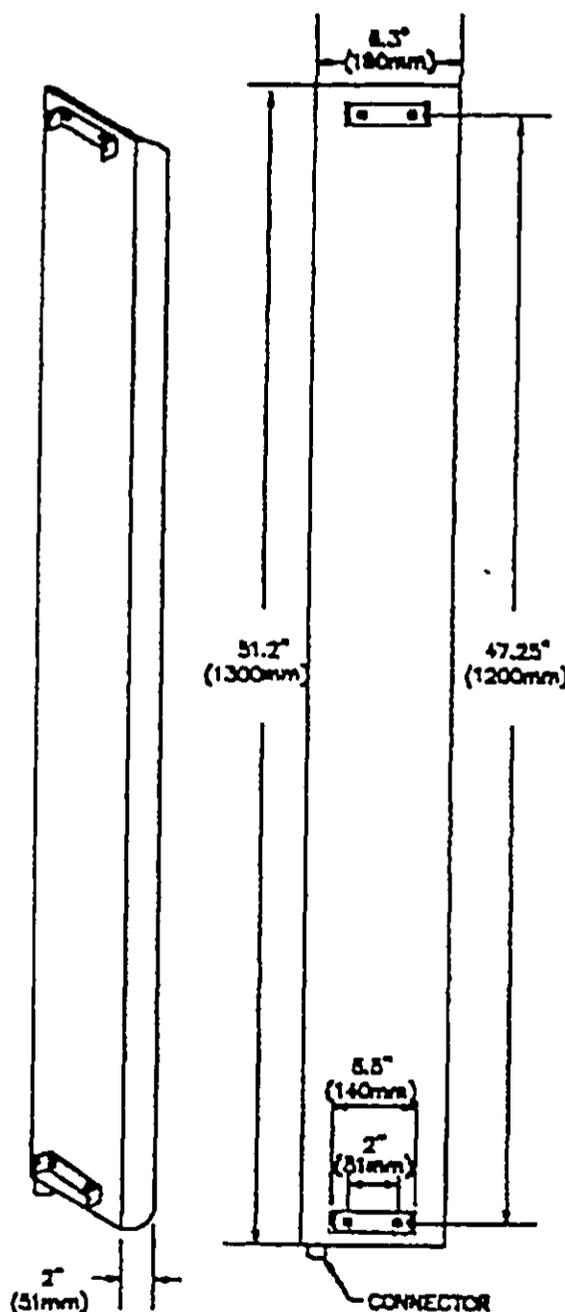


DB978H90.- { -KL 1710 - 1880 MHz
-M 1850 - 1990 MHz

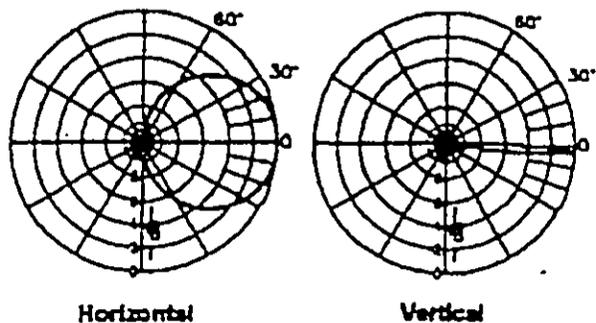
90°, 15 dBd DIRECTIONAL ANTENNA

Model Number	DB978H90N-KL/M	DB978H90E-KL/M
Termination	N-Female	7-16 Female
Frequency Range	-KL: 1710 - 1880 MHz -M: 1850 - 1990 MHz	
Gain	> 15 dBd, 17.1 dBi	
VSWR	< 1.5:1	
Beamwidth (3 dB from max)	Horizontal	90 ± 3.0°
	Vertical	7 ± 0.5°
Front to Back Ratio	> 25 dB	
Polarization	Vertical	
Max. Input Power	250 Watt	
Application	PCN, PCS, E-NETZ	
Other Information	Downtilt brackets available: DBS061	
Weight	7.1 lbs. (3.3 kg.)	
Wind Area	2.55 ft. ² (.21 m ²)	
Wind Load	106 LBF (473N) 48 lp (200 km/h)	
Max. Wind Speed	140 mph (220 km/h)	
Material	Reflector Screen: Passivated Aluminum Radiators: Passivated Aluminum Radome: ABS Mounting Hardware: Galvanized Steel	
Color	Normal: Gray	
Mounting	Mounting clamps to be ordered separate	
Weather Protection	Fully protected by metal and ABS	
Lightning Protection	All metal parts grounded	
Packing Size	60" x 12" x 6"	
Shipping Weight	11 lbs. (5 kg)	

099050-000-D



Radiation Patterns (Relative Field Strength)



15 dBd (17.1 dBi) Gain Directional Antenna with 90° horizontal 3 dB beamwidth for -KL: 1710-1880 MHz and -M: 1850-1990 MHz.

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TRANSMITTING 2.4 GTZ

WATTS ARE Below FCC Min.

1 WATT

GRID ANTENNAS

1990-2700 MHz.

SPECIFICATIONS

- Wind loading characteristics to 45% of comparable size solid parabolas.
- Cross polarization discrimination response better than solids.
- Survival: 125 MPH with 1/2 inch radial ice.

Diameter	Model Number	U.S. FCC Category	Gain (dBi)			Half Power Beam Width (Degrees)	F/B Ratio (dB)	Max VSWR		Windthrust 100 MPH (Pounds)
			Low	Mid	High			Std.	Low	
Dual Band Antennas 1990-2110 & 2450-2500 MHz										
			@2050	@2475	@2050					
4'	P-22WA48G		26.0	27.6	8.0	34	1.3	-	250	
6'	P-22WA72G		29.5	31.0	5.4	38	1.3	-	500	
8'	P-22WA96G		31.9	33.6	4.1	40	1.25	-	800	
10'	P-22WA120G		33.8	35.5	3.3	44	1.25	-	1300	
12'	P-22WA144G		35.5	37.0	2.7	46	1.25	-	1500	
15'	P-22WA180G		37.2	38.9	2.2	46	1.25	-	2700	
2200-2300 MHz										
3'	P-23A36G		23.8	24.0	24.2	9.8	27	1.5	-	97
4'	P-23A48G		26.4	26.6	26.8	7.6	36	1.3	1.15	250
6'	P-23A72G		29.9	30.1	30.3	5.1	38	1.3	1.10	500
8'	P-23A96G		32.2	32.4	32.6	3.8	40	1.1	1.06	800
10'	P-23A120G		34.4	34.6	34.8	2.8	42	1.1	1.06	1300
12'	P-23A144G		35.9	36.1	36.3	2.5	44	1.1	1.06	1500
15'	P-23A180G		37.9	38.1	38.2	2.0	46	1.1	1.06	2700
2290-2450 MHz										
3'	P-24LA36G		24.4	24.7	25.0	9.3	27	1.5	-	97
4'	P-24LA48G		26.7	27.0	27.3	7.0	34	1.3	1.15	250
6'	P-24LA72G		30.2	30.5	30.8	4.7	37	1.3	1.10	500
8'	P-24LA96G		32.7	33.0	33.3	3.5	38	1.1	1.08	800
10'	P-24LA120G		34.7	35.0	35.3	2.8	42	1.1	1.08	1300
12'	P-24LA144G		36.3	36.6	36.9	2.4	40	1.1	1.08	1500
15'	P-24LA180G		38.2	38.5	38.8	1.9	48	1.1	1.08	2700
2300-2500 MHz										
3'	P-24A36G		24.4	24.8	25.1	9.3	28	1.5	-	97
4'	P-24A48G		26.8	27.5	27.7	6.7	34	1.3	1.15	250
6'	P-24A72G		30.1	30.8	31.1	4.4	37	1.3	1.10	500
8'	P-24A96G		32.6	33.5	33.6	3.5	38	1.1	1.08	800
10'	P-24A120G		34.7	35.1	35.6	2.8	42	1.1	1.08	1300
12'	P-24A144G		36.1	36.8	37.3	2.4	40	1.1	1.08	1500
15'	P-24A180G		38.1	38.6	39.1	1.9	48	1.1	1.08	2700
2480-2700 MHz										
3'	P-25A36G		25.1	25.5	25.8	8.6	25	1.5	-	97
4'	P-25A48G		27.6	28.0	28.3	6.0	27	1.3	1.15	250
6'	P-25A72G		31.0	31.4	31.8	4.2	38	1.3	1.10	500
8'	P-25A96G		33.5	33.9	34.3	3.3	36	1.1	1.06	800
10'	P-25A120G		35.5	35.8	36.2	2.7	42	1.1	1.06	1300
12'	P-25A144G		37.0	37.4	37.8	2.7	42	1.1	1.06	1500
15'	P-25A180G		38.9	39.3	39.6	1.8	47	1.1	1.06	2700
2300-2700 MHz Specify 200 MHz Bandwidth For GL, GF & GN										
3'	P-26A36G		25.1	25.1	25.8	8.6	25	1.5	-	97
4'	P-26A48G		26.9	27.6	28.3	6.7	27	1.3	1.15	250
6'	P-26A72G		30.4	31.1	31.8	4.5	38	1.3	1.10	500
8'	P-26A96G		32.9	33.6	34.3	3.4	36	1.1	1.06	800
10'	P-26A120G		34.8	35.5	36.2	2.7	42	1.1	1.06	1300
12'	P-26A144G		36.4	37.1	37.8	2.3	42	1.1	1.06	1500
15'	P-26A180G		38.2	39.0	39.6	1.8	47	1.1	1.06	2700

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CERTIFICATE FOR TELECOMMUNICATIONS ANTENNA

This form is to be submitted along with building permit applications for telecommunications antennas. It shall be signed by the building permit applicant who shall be responsible for meeting the exclusion distance (setbacks) required by the Land Use Ordinance (LUO), and the veracity of information submitted herein.

Building permit plans shall include a delineation of the exclusion distance, and shall provide any additional information to demonstrate that fencing or other measures are being taken to restrict public access within this distance.

Please type or print legibly all required information.

Tax Map Key: 4-9-04:002

Applicant: Western PCS II Company
(If company, list company name)

Brief Description of the type of Antenna: Antenna will be land mobile PCS panel antenna.
(E.g. land-mobile, paging service; mast antenna, dish. If antenna is an independent operation fixed-point microwave or receiving only antenna, that does not qualify as an accessory use, please note this here; no other additional information is required for these antennas.)

Effective Radiated Power (ERP) of Antenna(s): 61 watts
(if more than one antenna is being proposed, or if an antenna is being added to a site where there are already other antennas, Indicate combined ERP)

Computation of Exclusion Distance (ED) in feet:

Exclusion Distance	
(in feet)	$.0325\sqrt{796(ERP)}$

Using the above formula, the Exclusion Distance is 7.2 feet

Applicant Date
(If company, authorized signature)

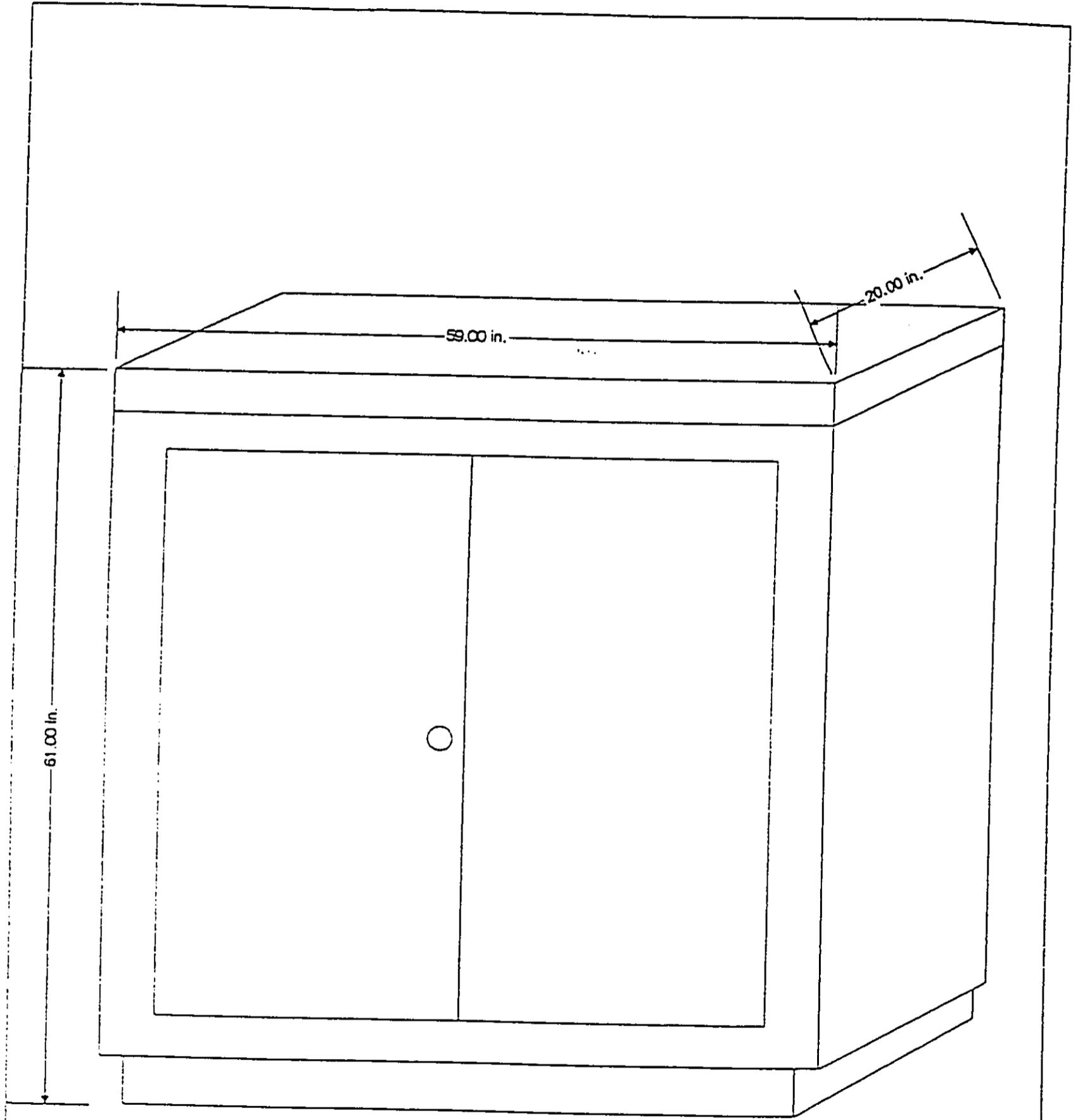
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Outdoor Mini BTS: (4'5" x 4'7" x 1'8"; 1,058 lbs. with batteries [fully loaded]; 230V AC. A typical site will require two cabinets.



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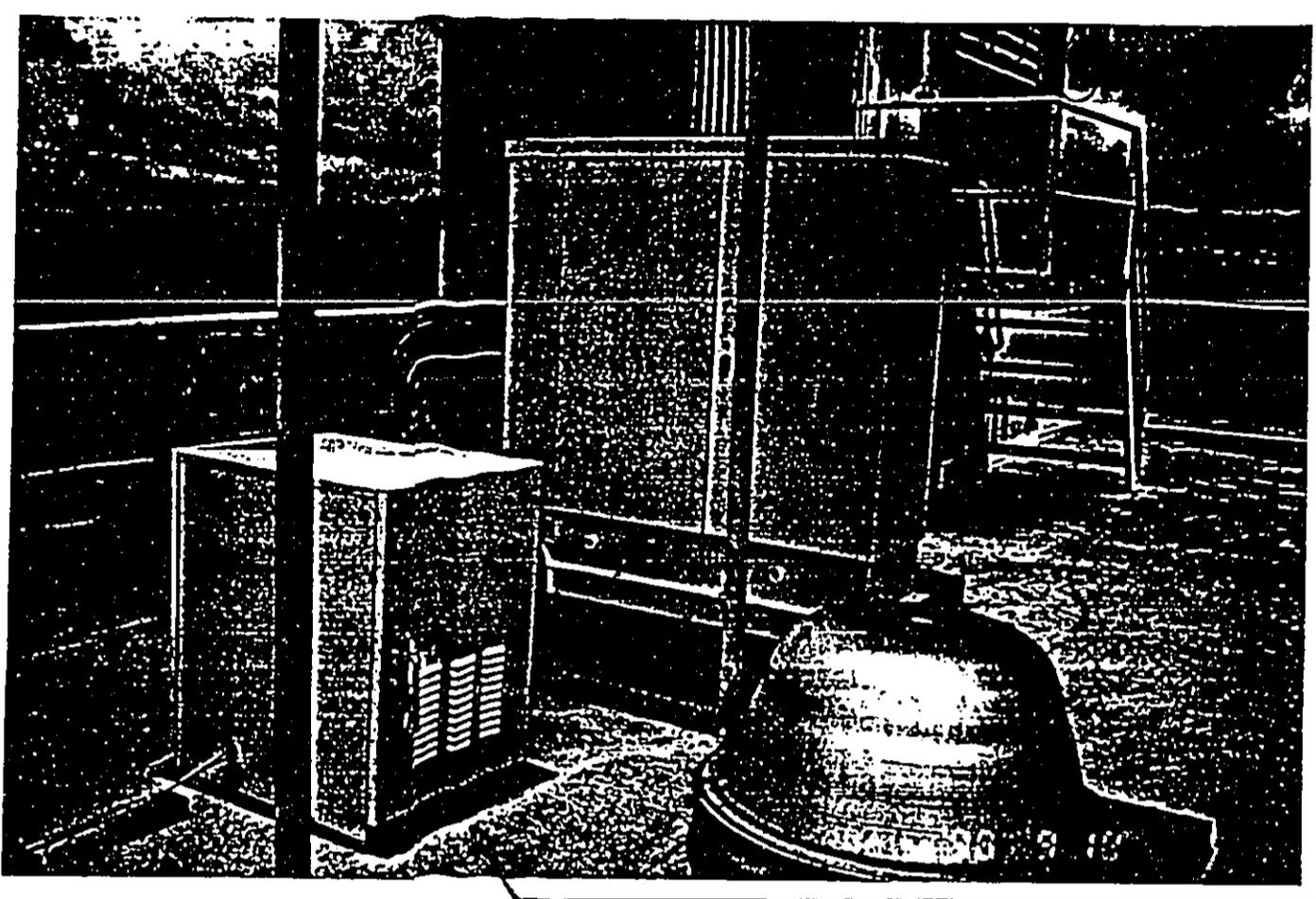
BTS UNIT

CABINET DIMENSIONS
61" H x 59" W x 20" D

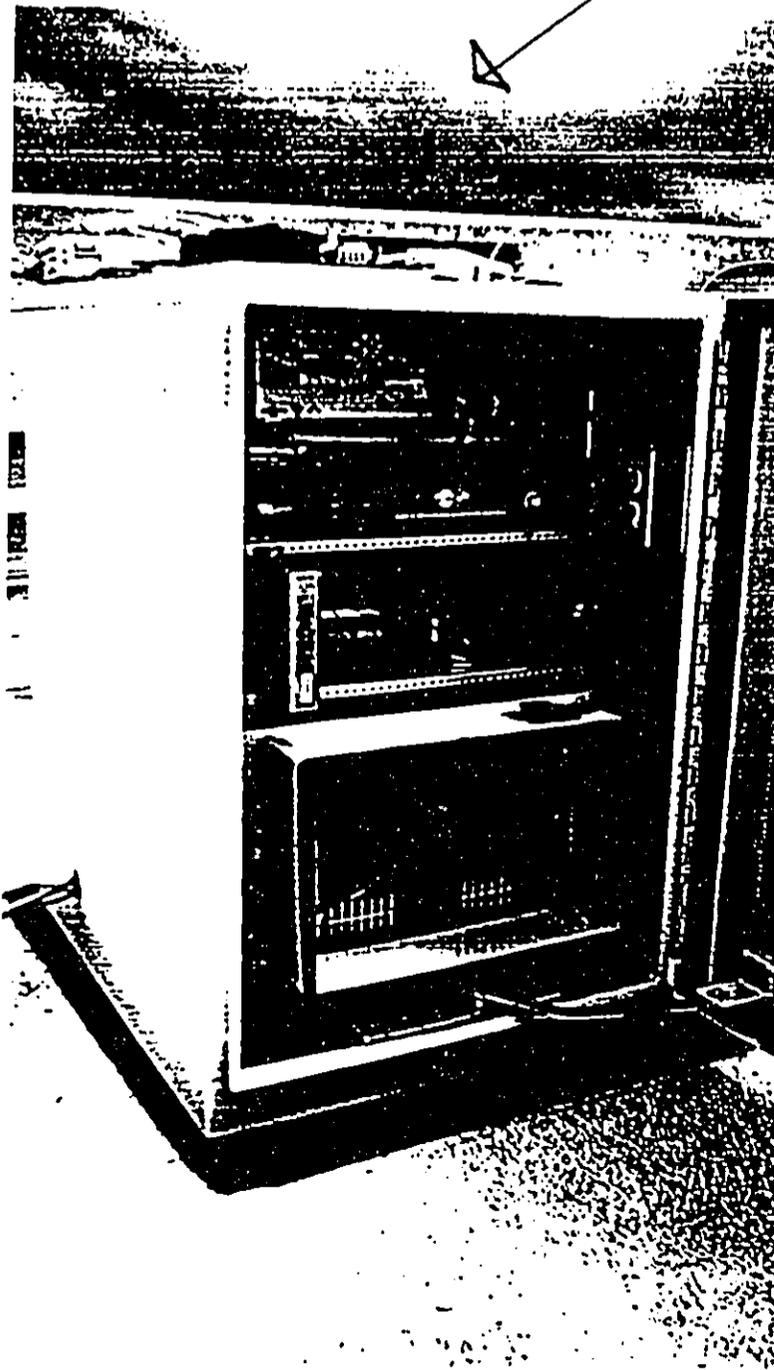
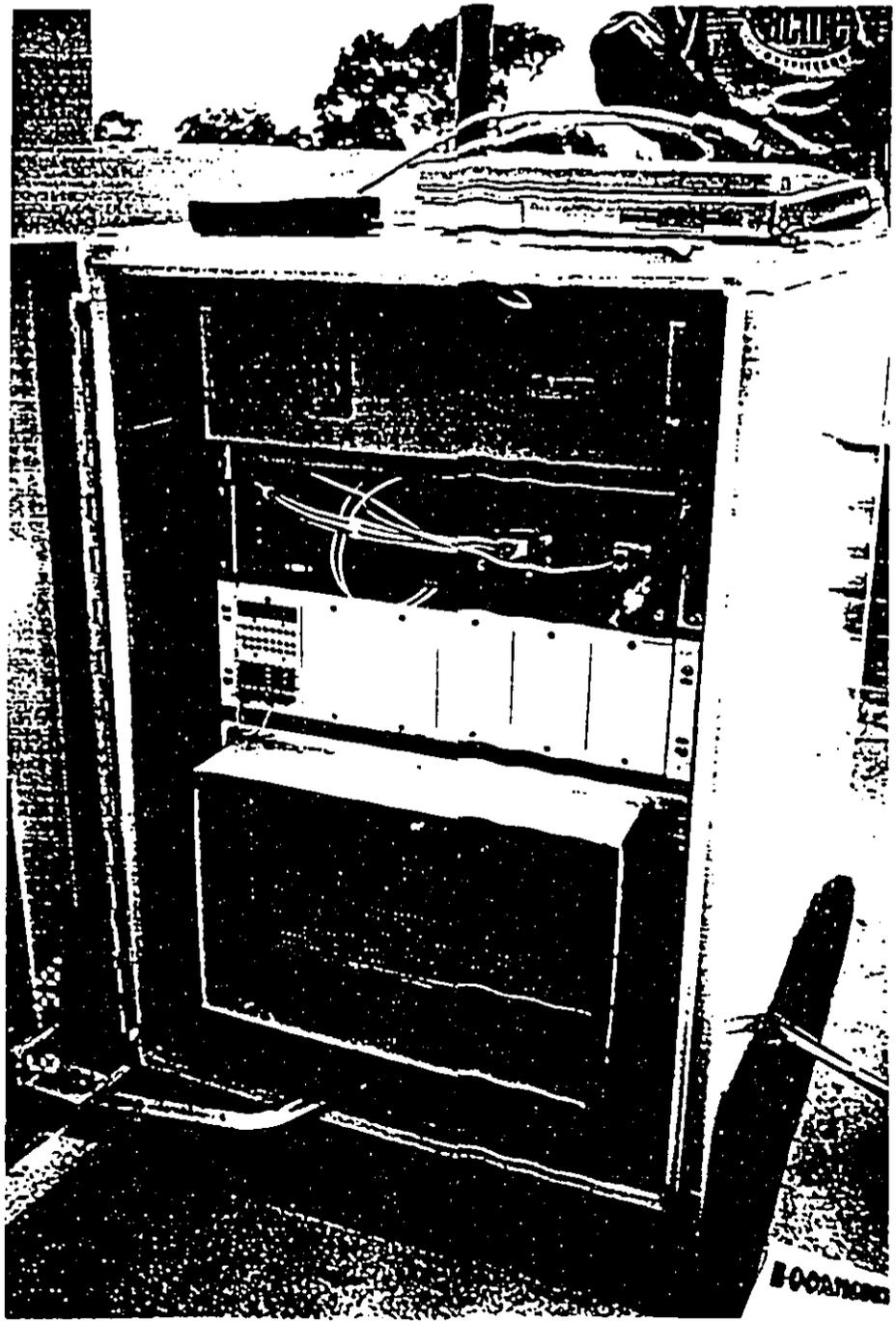
SCALE 1" = 1'

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MICROWAVE
RADIO
CABINET



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Kualoa Ranch Antenna Site - Visual Impact Analysis

Photographs number 1 thru 7 show views of the proposed Western Wireless monopole antenna site from locations along Kam Hwy as one would pass the site going from south to north. An orange balloon inflated with helium was used to simulate the height of the monopole. The map shows the approximate locations from which the pictures were taken with directional arrows indicating the line of sight. The pictures were taken with a telephoto lens set at between 90 and 105 mm. At these settings objects are at about the same size as seen by the eye.

Picture 1 gives an accurate representation of the heavily forested nature of the area. The monopole is not visible from this location due to screening trees and foliage.

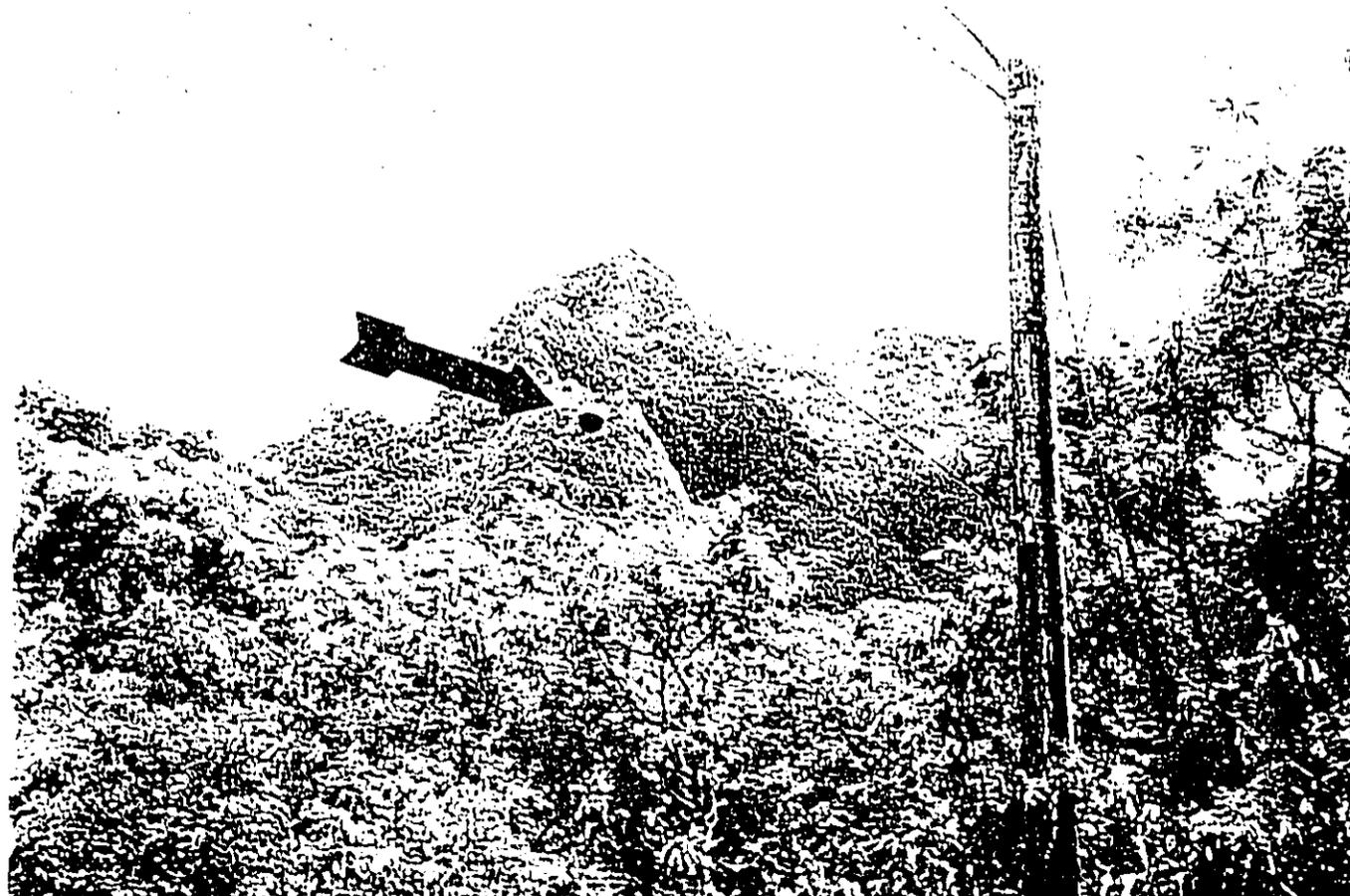
Picture 2 shows the balloon extending above the foliage at a height that simulates the top of the monopole. It is being held by a person who is standing at the exact location of the proposed monopole. Note that the person is entirely obscured by foliage and only the upper portion of the monopole will be exposed. This is the only location where a portion of the monopole will be able to be seen clearly.

Pictures 3 and 4 show views of the site from a little further north along Kam Hwy. The balloon is screened by trees and only its orange color enables it to be picked out. A wooden monopole of the type Western PCS proposes to use would be far more difficult to see.

The antenna location cannot be seen from locations 5-7 because of trees which block the view of the site.

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EXHIBIT "B-1" WESTERN PCS II SITE AGREEMENT

SITE DESCRIPTION

SITE NAME : Kualoa Ranch

SITE NUMBER : HI-2034B

SITUATED IN THE CITY OF _____, COUNTY OF _____, STATE OF HAWAII

COMMONLY DESCRIBED AS FOLLOWS : _____

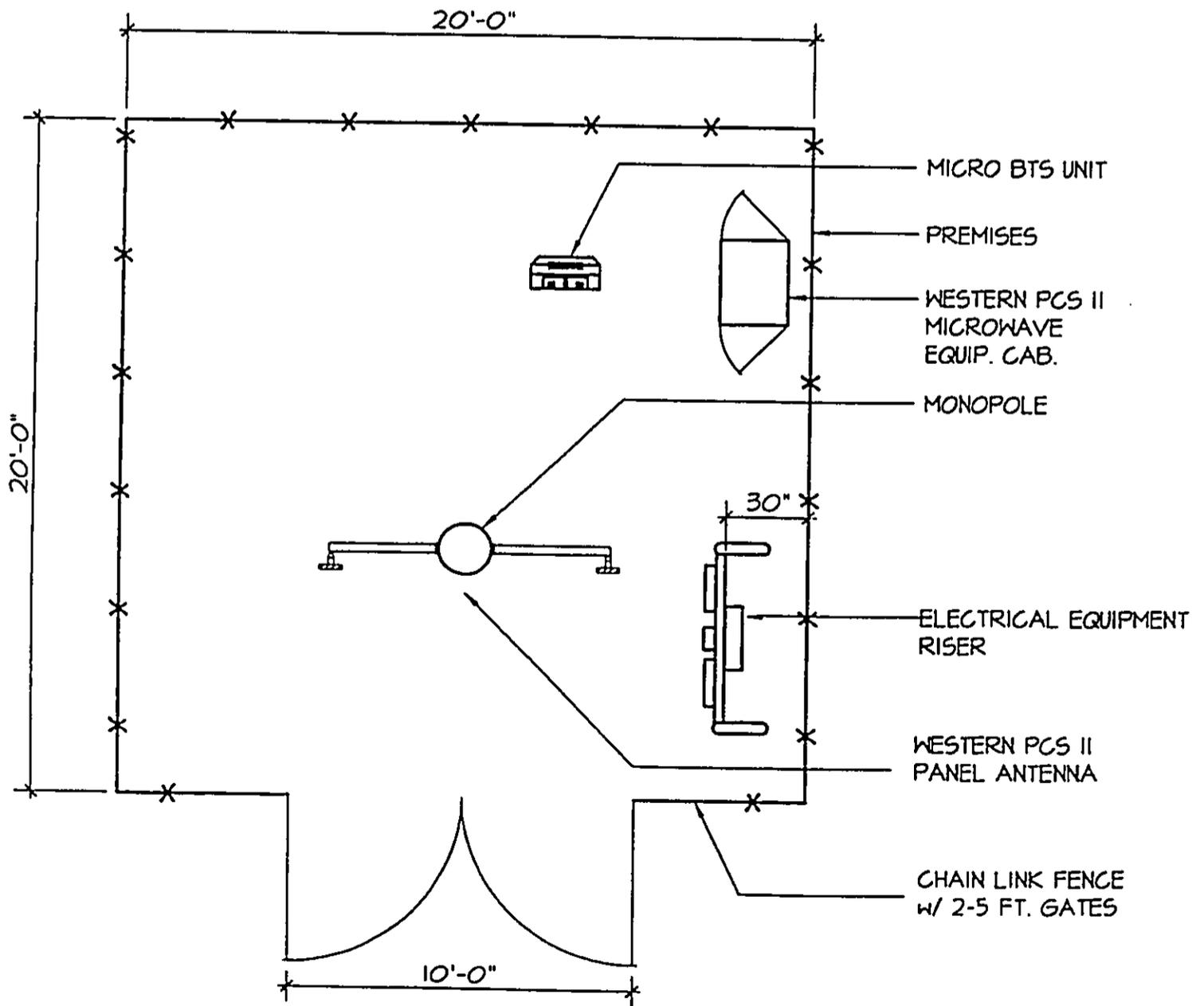
APPROVALS :

OWNER / AGENT _____ DATE _____

W. W. REPRESENTATIVE _____ DATE _____

WESTERN ENGINEER _____ DATE _____

WESTERN CONSTRUCTION _____ DATE _____



ENLARGED EQUIPMENT PLAN

scale: 3/16" = 1'-0"

SHT. 2 OF 3

0000 0006 1151

EXHIBIT "B-1"

WESTERN PCS II SITE AGREEMENT

APPROVALS :

OWNER / AGENT

DATE

W. W. REPRESENTATIVE

DATE

WESTERN ENGINEER

DATE

WESTERN CONSTRUCTION

DATE

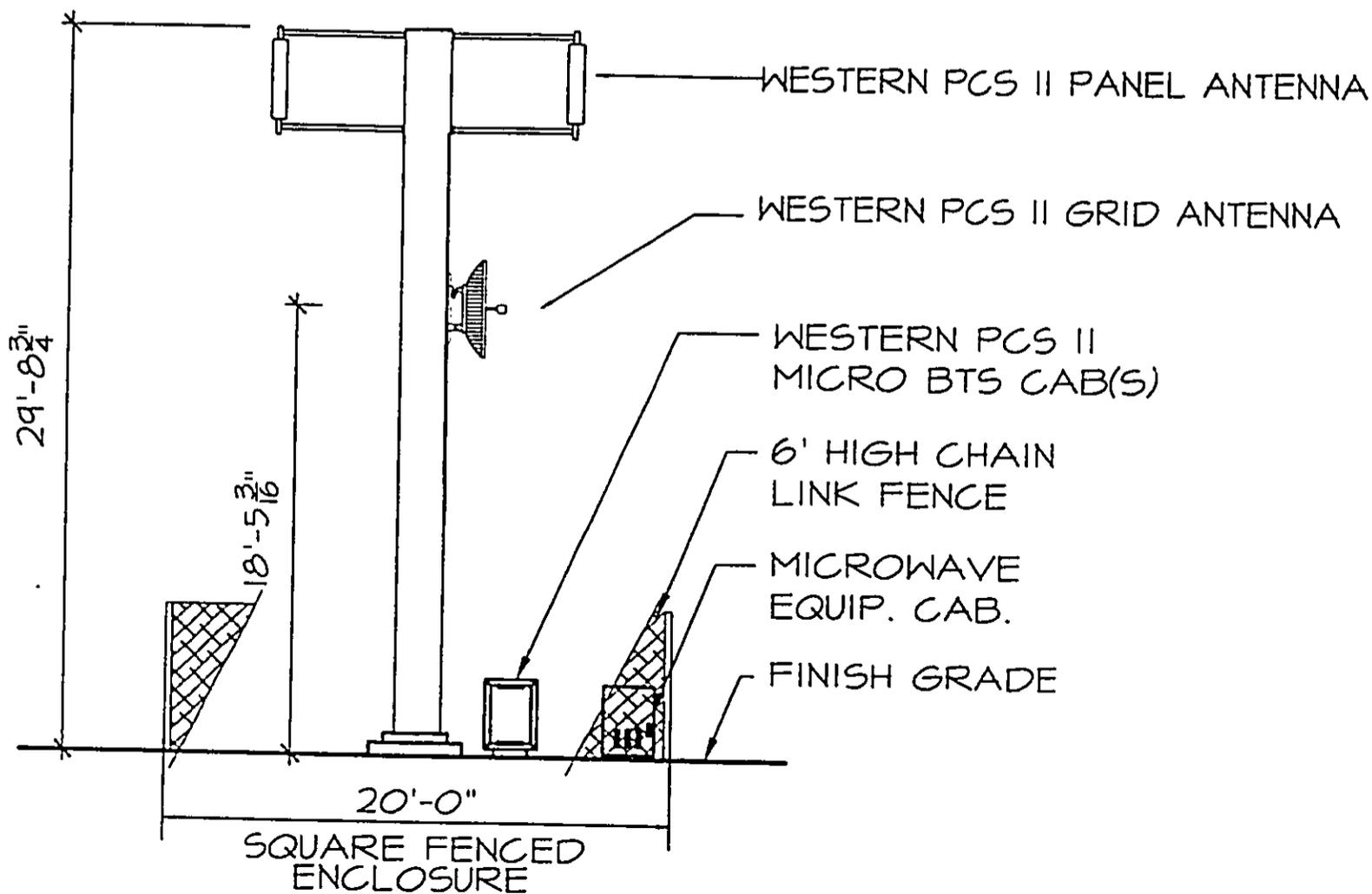
SITE DESCRIPTION

SITE NAME : Kualoa Ranch

SITE NUMBER : HI-2034B

SITUATED IN THE CITY OF _____, COUNTY OF _____, STATE OF HAWAII

COMMONLY DESCRIBED AS FOLLOWS : _____



ELEVATION A

scale: 1/8" = 1'-0"

SHT. 3 OF 3

Nora S. Bennett, et al. - T/C
117.480 ACS.
(111.513 ACS) L.C. Am. 3047:2
L.C. 304

PLAT
0'

L.C. Am. 3118:1

L.C. Am. 3044:2

L.C. Am. 3118:2
L.C. Am. 3047:1
L.C. Am. 3045:1
L.C. Am. 3066:2

KAMEHAMEHA HIGHWAY

(5.967 ACS.)

L.C. Am. 3011:2
L.C. Am. 2996:2

(1.0 Ac.)
L.C. Am. 5613:2

L.C. Am. 2786:2

L.C. Am. 2786:3

L.C. Am. 3045:2

L.C. Am. 3066:1
L.C. Am. 3066:3

L.C. Am. 3011:3

L.C. Am. 3011:4
L.C. Am. 3011:5

PROJECT LOCATION

"KUALOA"

L.C. Am. 2996:4
L.C. Am. 2996:5

L.C. Am. 3011:6
L.C. Am. 3011:7

1.58 Ac.
L.C. Am. 5916:2

L.C. Am. 5601:2

4
Elynetta M. Dowell, et al. - M/C
Clyde W. Dowell, et al. - M/C
Inga M. Park, et al. - M/C
Nora S. Bennett, et al. - M/C

To Kaneohe

PLAT 06
FOREST RESERVE

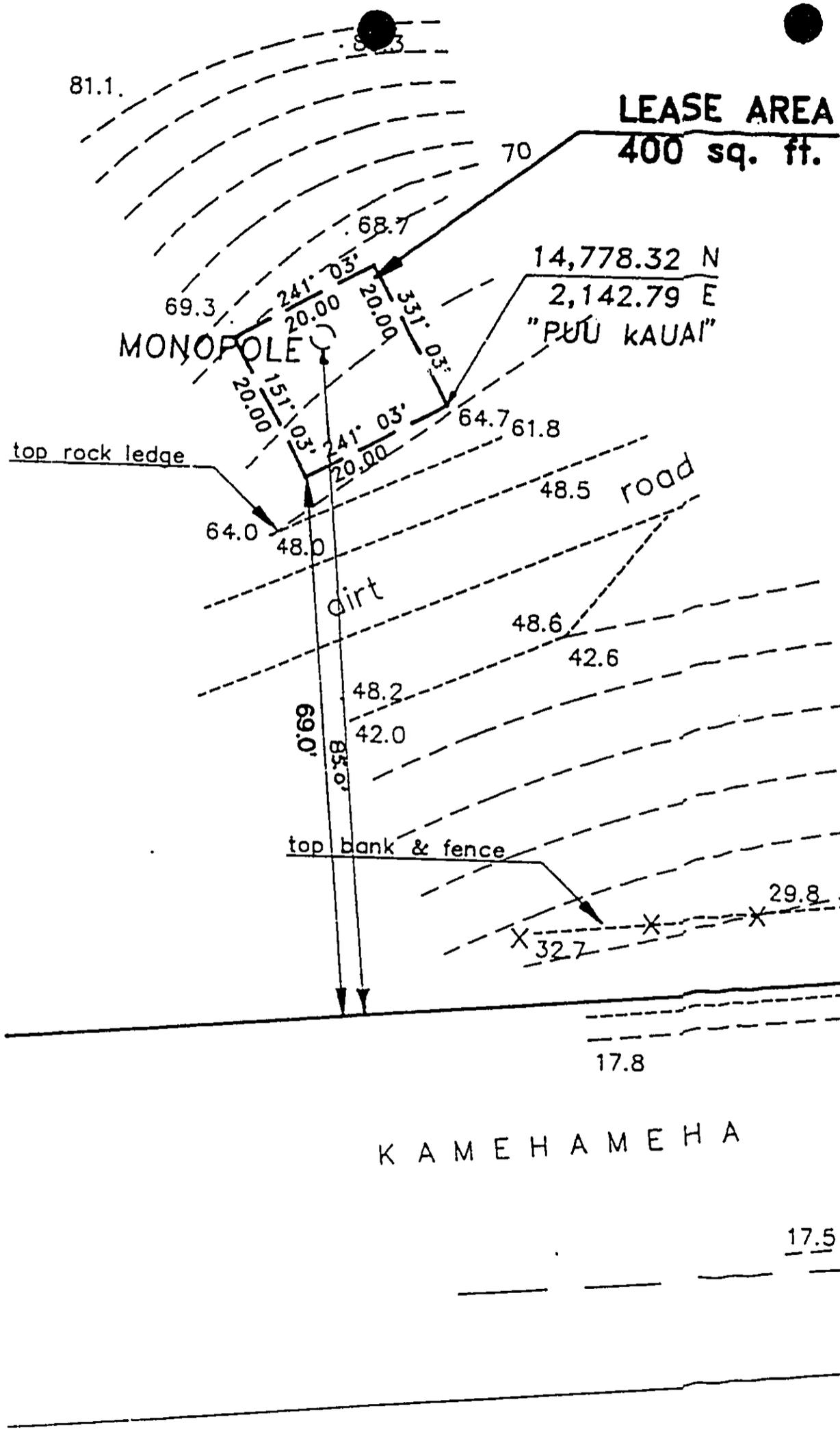
KUALOA - HAKIPUU BDRY. LINE

PLAT 02

KUALOA -
KAUPOKO - OAHU

0000 0006 1153

● MONOPOLE COOR



LEASE AREA
400 sq. ft.

21° 36' 42.703
157° 49' 52.509
NAD27

MONOPOLE
14,778.32 N
2,142.79 E
"PUU KAUI"

48,948.23 N
517,757.29 E
NAD83

14,786.61 N
2,126.78 E
"PUU KAUI"

KAMEHAMEHA

HIGH

P.Pole

W A I A H O L E F O R E S T

PARCEL 2
117.420 acres

recorded

November 20, 1850

Gerrit P. Judd dated

Deed of Kamehameha III to

255° 22' 30"
136.69

R.P. 7482

L.C. Aw. 4452

Apr. 14

Kalama

148° 53' 15"

1057.97

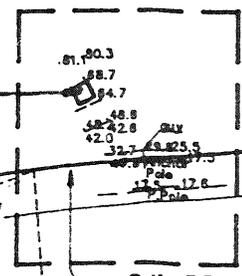
67° 54'

KAMEHAMEHA

1504.5

See Inset

LEASE AREA
400 sq. ft.



76° 24' 45"

416.75

70° 41' 15"

482.24

84° 55' 30" 274.93

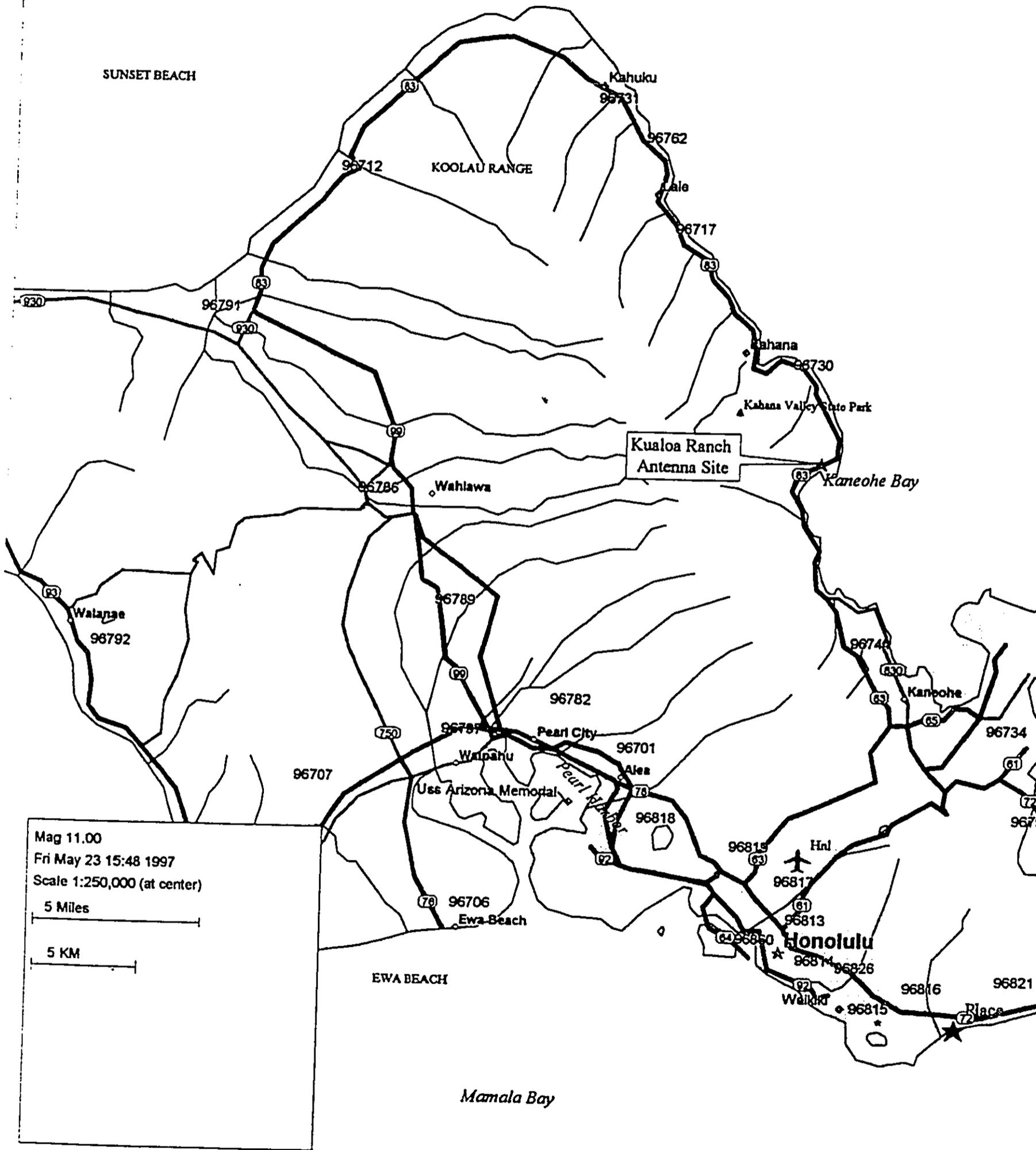
56° 27' 151.93

KUALOA BEACH

TMK 4-9-02: 1

0000 0006 1155

Kualoa Ranch Antenna Site Location



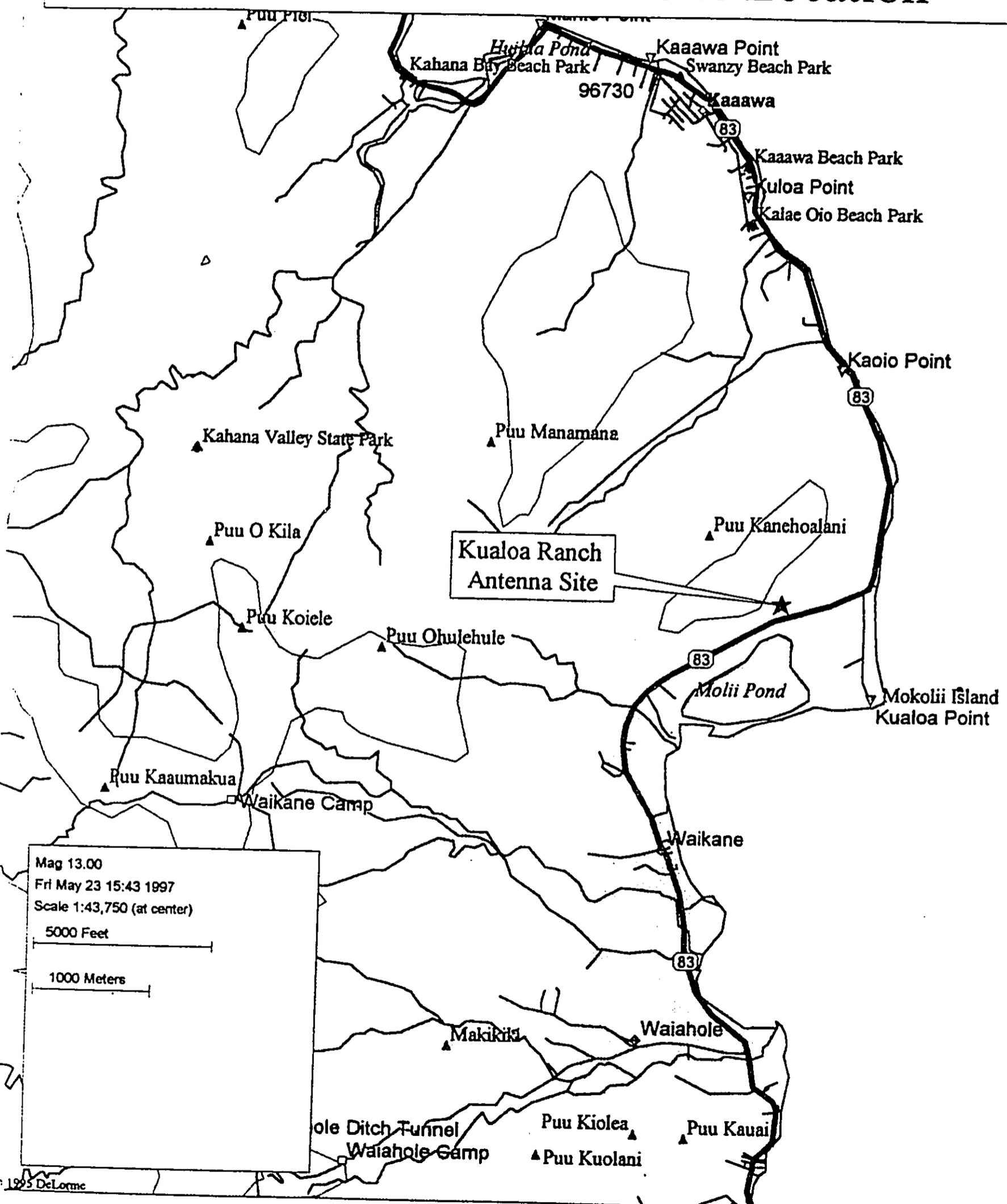
Mag 11.00
Fri May 23 15:48 1997
Scale 1:250,000 (at center)

5 Miles

5 KM

0000 0006 1156

Kualoa Ranch Antenna Site Location



Mag 13.00
Fri May 23 15:43 1997
Scale 1:43,750 (at center)
5000 Feet
1000 Meters

0000 0006 1157

Kualoa Ranch Antenna Site

