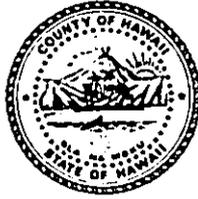


Received Jan. 11 - 2000

Stephen K. Yamashiro
Mayor



Virginia Goldstein
Director

Russell Kokubun
Deputy Director

County of Hawaii

PLANNING DEPARTMENT

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252
(808) 961-8288 • Fax (808) 961-8742

January 5, 2000

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, HI 96813

Dear Ms. Salmonson:

Subject: Final Environmental Assessment/Finding of No Significant Impact (FONSI)

Applicant: Big Island Radio Pu'u Ala Radio Tower

Request: Construction of a 195-foot Telecommunication Tower

TMK: (3) 2-8-7: Portion of 70; Pepeekeo, South Hilo, Hawaii

Pursuant to Section 11-200-11.1(a) of Title 11, Chapter 200, Hawaii Administrative Rules regarding Environmental Impact Statements, please find enclosed four (4) copies of the Final Environmental Assessment and FONSI for the above-described project for publication in the January 23, 2000, edition of The Environmental Notice. The applicant has notified us that the project summary (titled Pu'u Ala Radio Tower EA Description) was transmitted via e-mail to your office on December 27, 1999.

We have carefully reviewed the comments received on the Draft EA for the subject project during the 30-day public review period which began on November 8, 1999, and have determined that this project will have no significant environmental effect. We are hereby issuing a Finding of No Significant Impact (FONSI) for the proposed project.

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
Page 2
January 5, 2000

Please call Phyllis Fujimoto or Susan Gagorik of this department should you have any questions.

Sincerely,


VIRGINIA GOLDSTEIN
Planning Director

PF:pak
p:\wpwin60\phyllis\FONSItower.doc

Attachments (4 copies of FEA & publication form)

c: Mr. Ron Terry, Geo Metrician
Mr. William Moore
Department of Parks & Recreation
Mr. Buddy Gordon, Big Island Radio

2000-01-23-HI-~~FEA~~

JAN 23 2000
FILE COPY

FINAL ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT
(PU'U'ALALA RADIO TOWER)

TMK (3rd) 2-8-7:70 (por.)
Pepe'ekeo, South Hilo District, Island of Hawaii, State of Hawaii

APPLICANT:

Buddy Gordon, General Manager
Big Island Radio
688 Kinoole Street
Hilo, Hawaii 96720

ACCEPTING
AUTHORITY:

Hawaii County Planning Department
25 Aupuni Street
Hilo, Hawaii 96720

CONSULTANT:

Ron Terry Ph.D.
HC 2 Box 9575
Keaau, Hawaii 96749

CLASS OF ACTION:

Use of County Lands

This document is prepared pursuant to:
the Hawaii Environmental Protection Act,
Chapter 343, Hawaii Revised Statutes (HRS), and
Title 11, Chapter 200, Hawaii Department of Health Administrative Rules (HAR).

TABLE OF CONTENTS

SUMMARY		ii
PART 1:	PROJECT LOCATION, BACKGROUND AND DESCRIPTION	1
1.1	Project Location and Background	1
1.2	Project Description	1
PART 2:	THE ENVIRONMENTAL ASSESSMENT PROCESS	2
2.1	Regulatory Requirements	2
2.2	Public Involvement and Agency Coordination	2
2.3	Alternatives	3
2.3.1	Proposed Project	3
2.3.2	No Action	3
2.3.3	Alternative Site Locations	3
PART 3:	ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION	3
3.1	Basic Geographic Setting	3
3.2	Physical Environment	4
3.2.1	Drainage, Floods and Hazards	4
3.2.2	Flora, Fauna, Wetlands and Threatened & Endangered Species	5
3.2.3	Air Quality and Noise	6
3.2.4	Visual Impacts	6
3.2.5	Radiofrequency (RF) Electromagnetic Fields	7
3.2.6	Construction Impacts	7
3.3	Socioeconomic and Cultural	8
3.3.1	Socioeconomic and Land Use	8
3.3.2	Archaeology, Historic Sites and Cultural Setting	8
3.4	Public Facilities and Utilities	9
3.5	Secondary and Cumulative Impacts	9
3.6	Required Permits and Approvals	9
PART 4:	DETERMINATION	9
PART 5:	FINDINGS AND REASONS	10
REFERENCES		12
APPENDIX 1A	CONSULTATION LETTERS PRIOR TO DRAFT EA	
APPENDIX 1B	COMMENTS TO DRAFT EA AND RESPONSES	
APPENDIX 2	FIGURES	
	1. U.S.G.S MAP SHOWING PROJECT LOCATION	
	2. TAX MAP	
	3. GENERAL SITE PLAN	
	4. PHOTOGRAPHS OF PU'U 'ALALA	
	5. PROPOSED ANTENNA AND SUPPORTING STRUCTURE	
	6. VISUAL SIMULATION OF PROPOSED TOWER	
APPENDIX 3	COUNTY COUNCIL RESOLUTION 27-99, ADOPTED 2/17/99	

SUMMARY OF PROJECT, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Project Summary

Big Island Radio is expanding and upgrading its radio broadcast services and requires a higher tower to achieve the best possible reception by its listeners. The site of its current 140-foot tower cannot accommodate expansion. Therefore, the Hawaii County Council granted a 7,000 square-foot expansion in its easement on County land as a site for a new tower, about 50 feet from the current one. The 195-foot self-supporting tower has been designed to accommodate multiple users, including cellular telephone, pager, and radio transmission. This co-location approach helps reduce the number of towers that are needed on any given site and helps prevent the proliferation of towers on multiple hills and ridges, preserving scenic values. As Pu'u `Alala is already home to a number of towers, the project will help minimize visual impacts in the region and still accommodate the need for additional telecommunications facilities. The cost of the improvements is approximately \$125,000, and all funding is private (no public funds are involved).

Short Term Impacts

Construction Impacts: Landclearing and construction activities in the small area planned for disturbance will produce short-term impacts to noise and air quality. In order to ensure that construction-related damage is avoided or minimized, the following mitigation measure is proposed:

Construction activities will be limited to non-rainy periods; cleared areas will be replanted or otherwise stabilized as soon as possible; and construction materials, petroleum products, wastes, debris, and landscaping substances (herbicides, pesticides, and fertilizers) will be prevented from leaving the site. The contractor will be required to properly dispose of any construction material, containers, and other debris.

Long Term Impacts

In general, no sensitive biological, hydrological, archaeological or other important resources are present and no adverse long-term impacts are expected to result from the project. The following mitigation measure is proposed as a precaution against inappropriate actions in the event of inadvertent finds of burials or historic sites:

If any previously unidentified sites, or remains such as artifacts, shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered, work will stop immediately and SHPD will be consulted to determine the appropriate mitigation.

PART 1: PROJECT LOCATION, BACKGROUND AND DESCRIPTION

1.1 Location and Background

Pu'u 'Alala is a hill situated mauka of Pepe'ekeo town, 11 miles north of Hilo (Figs. 1-2). The hill (TMK 2-8-7:70 [por.]), owned by the County of Hawaii and under the jurisdiction of the Parks and Recreation Department (P&R), has been dedicated to broadcasting and telecommunications purposes for many decades (Fig. 4). There are currently three radio towers, a pole and antenna used by a paging company, and a number of accessory antennas on the site. The County operates a tower for use by the Police Department, Fire Department, and Water Supply and Civil Defense. A cellular tower is also in planning.

Big Island Radio built a 140-foot radio tower in 1988 in order to broadcast the signals for its radio stations, which currently number four. As part of the conditions under which the County of Hawaii granted a perpetual, non-exclusive easement on the hill (see Fig. 3), Big Island Radio paid for installation of three-phase power and phone service and for gating the hill to limit access for safety and security. Big Island Radio has maintained the site since then.

1.2 Project Description

Big Island Radio is expanding and upgrading its radio broadcast services and requires a higher tower to achieve the best possible reception by its listeners. The site on which their current tower is located could not accommodate the guy wires that would be needed by a higher tower. Therefore, they have sought and have been granted an 7,000 square-foot expansion of their existing easement (see Fig. 3) as a site on which to build a 195-foot tower, about 50 feet away from the existing tower (Fig. 5 illustrates the tower and provides specifications). The self-supporting tower has been designed to accommodate multiple users, including cellular telephone, pager, and radio transmission. This **co-location** approach helps reduce the number of towers that are needed on any given site and helps prevent the proliferation of towers on multiple hills and ridges, preserving scenic values. As Pu'u 'Alala is already home to a number of towers, the project will help minimize visual impacts in the region and still accommodate the need for additional telecommunications facilities. The cost of the improvements is approximately \$125,000, and all funding is private (no public funds are involved).

Under the terms of the amended Grant of Easement approved by the County Council on February 17, 1999 (see App. 3), Big Island Radio will be authorized to sublease space on the new tower and locate accessory equipment within the easement, with the approval of the County of Hawaii, which will receive a portion of the gross revenues.

Approvals by the Federal Communications Commission (FCC) and Federal Aviation Administration (FAA) have already been obtained.

PART 2: THE ENVIRONMENTAL ASSESSMENT PROCESS

2.1 Regulatory Requirements

This Environmental Assessment (EA) process is being conducted in accordance with Chapter 343 of the Hawaii Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawaii Administrative Rules (HAR), is the basis for the environmental impact process in the State of Hawaii. An EA is necessary because the project involves obtaining a grant of easement and building a structure on County land at Pu'u 'Alala. The applicant is Big Island Radio, and the Accepting Authority is the Hawaii County Planning Department.

According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. Part 5 of this EA lists these criteria and the preliminary finding made by the Accepting Authority, which is an anticipated Finding of No Significant Impact (FONSI). If after review of the comments received on the Draft EA the Accepting Authority concludes that no significant impacts would occur from implementation of the proposed action, a FONSI will be prepared and the action will be permitted to occur. If the Accepting Authority is study finds that significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) will be prepared.

2.2 Public Involvement and Agency Coordination

The following agencies, organizations and individuals have been consulted during the Environmental Assessment Process:

County:

Planning Department
Police Department

Department of Water Supply
County Council

State:

Department of Land and Natural Resources, Historic Preservation Division

Federal

Federal Communications Commission
Federal Aviation Administration

Copies of communications received during preconsultation are contained in Appendix 1.

Two public hearings on the amended Grant of Easement were held before the Hawaii County Council, on February 2 and February 17, 1999. There was no opposition to the project voiced at these hearings, and the Council voted 9-0 in favor of a Resolution 27-99 to grant the amendment to the easement.

Notice of the availability of the Draft EA was published by the Hawaii State Office of Environmental Quality Control (OEQC) in the Environmental Notice of 8 November 1998. This initiated a 30-day comment period during which the public was invited to respond to the Draft EA with comments or questions. Three comment letters were received. These letters and the responses to them are included at the end of Appendix 1. The Final EA was slightly revised in certain sections to incorporate information from these letters. In one section, denoted by brackets in the left-hand margin, an additional mitigation measure was added.

2.3 Alternatives

An EA is required to explore all the alternatives that can accomplish a project's purpose and need in order to determine if there are practical and less environmentally damaging alternatives. In this case, the primary purpose is to expand the East Hawaii broadcasting capability of Big Island Radio. A secondary purpose is to provide a site for co-location of future telecommunications facilities in the same area. Given current and foreseeable technology, some sort of tower would be required. A process of alternative formulation developed three basic concepts: the proposed project, No Action, and alternative sites.

2.3.1 Proposed Project

The proposed project is described in Section 1.2 above and illustrated in Figures 1-5.

2.3.2 No Action

Under the No Action Alternative, an additional radio tower would not be built and Big Island Radio would have to look for other locations to service its additional broadcasting needs. This EA considers the No Action Alternative as the baseline by which to compare environmental effects from the project.

2.3.3 Alternative Site Locations

Pu'u `Alala is highly but not uniquely suited for use as a radio tower site. Several other scoria cones that are part of the same rift zone on Mauna Kea would have roughly equivalent line-of-sight qualities, e.g., Ka`uku and Kanoa (see Fig. 1 for latter). However, Pu'u `Alala has the advantage of existing infrastructure and proven utility for radio broadcasts. More importantly, siting it here serves to concentrate towers in one location and avoid spreading the visual impacts of towers and the power lines and roads they require over other ridges and hills in the area, none of which are currently disturbed.

Federal

Federal Communications Commission
Federal Aviation Administration

Copies of communications received during preconsultation are contained in Appendix 1.

Two public hearings on the amended Grant of Easement were held before the Hawaii County Council, on February 2 and February 17, 1999. There was no opposition to the project voiced at these hearings, and the Council voted 9-0 in favor of a Resolution 27-99 to grant the amendment to the easement.

2.3 Alternatives

It is important for an EA to explore all the alternatives that can accomplish a project's purpose and need in order to determine if there are practical and less environmentally damaging alternatives. In this case, the primary purpose is to expand the East Hawaii broadcasting capability of Big Island Radio. A secondary purpose is to provide a site for co-location of future telecommunications facilities in the same area. Given current and foreseeable technology, some sort of tower would be required. A process of alternative formulation came up with three basic concepts: the proposed project, No Action, and alternative site locations.

2.3.1 Proposed Project

The proposed project is described in Section 1.2 above and illustrated in Figures 1-5.

2.3.2 No Action

Under the No Action Alternative, an additional radio tower would not be built and Big Island Radio would have to look for other locations to service its additional broadcasting needs. This EA considers the No Action Alternative as the baseline by which to compare environmental effects from the project.

2.3.3 Alternative Site Locations

Pu'u `Alala is highly but not uniquely suited for use as a radio tower site. Several other scoria cones that are part of the same rift zone on Mauna Kea would have roughly equivalent line-of-sight qualities, e.g., Ka`uku and Kanoa (see Fig. 1 for latter). However, Pu'u `Alala has the advantage of existing infrastructure and proven utility for radio broadcasts. More importantly, siting it here serves to concentrate towers in one location and avoid spreading the visual impacts of towers and the power lines and roads they require over other ridges and hills in the area, none of which are currently disturbed.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.1 Basic Geographic Setting

The expanded easement and tower site is at the summit of Pu'u 'Alala (Figs. 1 & 4), a scoria cone from a flank eruption of Mauna Kea that occurred somewhere between 65,000 and 250,000 years ago (Wolfe and Morris 1996). The peak of the hill is 758 feet above sea level. The cone is forested with alien trees except at the summit, which has been modified for use by broadcasting and telecommunications facilities and contains roads, pads, buildings, and towers (Fig. 4). Land use in the area surrounding the cone is residential and agricultural, and the nearest home or farm dwelling is about 600 feet from the summit.

The soil that has developed on the ash-mantled cone is classified as Hilo Silty Clay Loam. This soil has a dark-brown, highly acidic surface layer about 12 inches thick overlying a subsoil that may be as deep as 48 inches. On areas of steeper slopes, the soil erosion hazard changes from slight to moderate. Permeability is rapid and runoff is medium (U.S. Soil Conservation Service 1973). Annual rainfall here is approximately 150 inches (Giambelucca et al 1986).

The expanded easement and tower site is surrounded by a loop road that encloses about one-third of an acre in total (Fig. 3). All land use within and around this loop is related to telecommunications, with various towers and poles and their associated equipment sheds, pads and roads (Fig. 4). The public is prevented from entering the site by a gated road and no-trespassing signs.

3.2 Physical Environment

3.2.1 Drainage, Flooding and Hazards

Environmental Setting

The project site is designated "X", defined as areas outside the 500 year flood plain, on the Flood Insurance Rate maps (FIRM) (No panel printed).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. The project site is located in Lava Flow Hazard Zone 8 on a scale of ascending risk 9 to 1 (Heliker 1990:23). The low hazard risk is based on the fact that only a few percent of the surface has been covered by lava in the past 10,000 years. As such, there is a negligible risk of lava inundation over relatively short time scales.

In terms of seismic risk, the entire Island of Hawaii is rated Zone 4 Seismic Probability Rating (Uniform Building Code, Appendix Chapter 25, Section 2518). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built.

Very high winds (hurricane force or greater, i.e., more than 71 miles per hour) are unusual under any circumstances in South Hilo. Actual hurricanes have not affected the island of Hawaii in at least the last 100 years. Two hurricanes in ten years on Kauai, however, demonstrated that they do occur in the Hawaiian Islands and that one may someday affect the Big Island.

Impacts and Mitigation Measures

In general, drainage, geologic and climatic conditions impose no constraints on the project. The site has proven well-adapted for towers, and is located more than 600 feet away from the nearest home. An area of less than 500 square feet will be excavated for the foundation of the tower, and no problems with substrate are anticipated. Such towers are built to withstand heavy seismic forces and high winds and rarely collapse even under extreme conditions.

3.2.2 Flora and Fauna, Wetlands, and Threatened and Endangered Species

The site was inspected for biological resources in September 1999. The vegetation is a mixture of uluhe, the native false staghorn fern (*Dicranopteris linearis*) and the alien wainaku grass (*Panicum repens*), with a number of other weedy grasses, shrubs and trees, notably guava (*Psidium guajava*), melastoma (*Melastoma candidum*), sourbush (*Pluchea odorata*), and Spanish clover (*Desmodium* spp.) (Fig. 4). The forest on the hill surrounding the loop contains mainly guava and the escaped ornamental tree fiddlewood (*Citharexylum spinosum*). No listed, candidate or proposed endangered animal or plant species were found or would be expected in the area. In terms of conservation value, no botanical or zoological resources requiring special protection are present. No streams, wetlands or special aquatic sites are present.

Impacts and Mitigation Measures

Because of the lack of native ecosystems and threatened or endangered plant species, no adverse impacts would occur as a result of clearing and construction of the tower.

3.2.3 Air Quality and Noise

Environmental Setting, Impacts and Mitigation Measures

Air quality is excellent in the South Hilo area and would not be affected by the construction or operation of the proposed facility. Noise on the site is very low. No impact to noise levels is expected except for brief and minor impacts during construction, which would be mitigated by the distance to any sensitive receptors.

3.2.4 Visual Impacts

Radio and cell towers may produce undesired visual impacts by inserting a man-made element into scenic vistas. Siting of such facilities is often controversial, particularly when located in remote areas atop scenic ridges or hills. It is therefore important to analyze visual impacts as part of any environmental analysis of radio tower siting.

Existing Environment

The topography of the Hamakua Coast (as windward slope of Mauna Kea is commonly called, regardless of judicial district) consists of a moderately sloping surface extending from the sea cliffs to Mauna Kea, inscribed by deep stream gulches. At about 7,000 feet elevation a change in geology induces steeper slopes and a concave slope profile. The most spectacular views in the Pepe'ekeo area are downslope towards the sea. Views upslope from most locations are very subtle and do not encompass large swaths of upland, although the summit regions of Mauna Kea can often be seen, if not blocked by vegetation or topography. Elevated vantages (such as second floors) often are high enough to have good upslope views.

The Hawaii County General Plan contains Goals, Policies and Standards intended to preserve areas of natural beauty and scenic vistas from encroachment. Although no specific viewplanes in this area are mentioned as especially worthy of preservation, the Plan notes that "from various locations in [South Hilo] there are magnificent views of the mountains" (1989:C-33).

Impacts and Mitigation Measures

Fig. 6 provides a simulated "before and after" view of the hill with and without the new radio tower. The difference in appearance is minor. As the summit is already dedicated to broadcasting and telecommunications purposes and is occupied by almost a dozen towers and poles of various types, no adverse impacts are foreseen as a result of this project. Avoidance of the larger sister cone, Kanoa, is an indirect beneficial impact of this project, because the new tower will offer co-location opportunities to future users who might otherwise seek out new sites.

3.2.5 Radiofrequency (RF) Electromagnetic Fields

Radio broadcasting antenna are located atop towers, among other reasons, in order to avoid hazards to human health posed by exposure at close-range to radio frequency energy. The location of the tower in an area of restricted access on Pu'u 'Alala, 600 feet from farms and residences, provides a more than adequate buffer for exposure. The Federal Communication Commission (FCC) has guidelines for all licensed transmitters, such as radio transmitters, cellular telephone sites, and pager antenna. All FCC licensees are expected to be in compliance with the FCC's exposure limits. It is the responsibility of all the licensees with co-located transmitters to ensure that individual contributions of each transmitter do not cumulatively exceed the FCC limits in an accessible area. Exposure to RF levels below these levels is considered to have no detrimental biological effect by expert standards bodies such the Institute of Electrical and Electronics Engineers, Inc. (IEEE) or the National Council on Radiation Protection and Measurements (NCRP). The facility operated by Big Island Radio and any co-located facilities will not expose any nearby persons or land uses to RF levels in excess of the FCC's limits.

3.2.6 Construction Impacts

Landclearing and construction activities in the small area will produce short-term impacts to noise and air quality. These would be mitigated by the distance from the site to any sensitive receptors.

In order to ensure that construction-related damage is avoided or minimized, the following is proposed:

Mitigation measure: Construction activities will be limited to non-rainy periods; cleared areas will be replanted or otherwise stabilized as soon as possible; and construction materials, petroleum products, wastes, debris, and landscaping substances (herbicides, pesticides, and fertilizers) will be prevented from leaving the site. The contractor will be required to properly dispose of any construction material, containers, and other debris. The contractor will be required to properly dispose of any construction material, containers, and other debris.

3.3 Socioeconomic and Cultural

3.3.1 Socioeconomic and Land Use Designations

Existing Environment

The property is owned by the County of Hawaii and is under the jurisdiction of the Hawaii County Parks and Recreation Department. County zoning is Open, and the State Land Use District is Urban. The site is outside the Special Management Area. Plan approval by the County Planning Department and a Building Permit are required.

The project site is located mauka of Pepe'ekeo town, one of the larger sugar cane plantation towns on the Hamakua Coast, with a population of 1,813 in 1990.

Impacts and Mitigation Measures

No socioeconomic or land use impacts are expected, as the site is already in use for broadcasting and telecommunications.

3.3.2 Archaeology, Historic Sites and Cultural Setting

Archaeology: Environmental Setting, impacts and Mitigation Measures

The site was inspected for archaeological resources by an archaeologist with the State Historic Preservation Division (SHPD) in September of 1999. No archaeological resources were found on the parcel. The Final EA is expected to contain a determination that the project will have 'no-effect' on significant historic sites. The following mitigation measure is proposed as a precaution against inappropriate actions in the event of inadvertent finds of burials or historic sites:

Mitigation Measure: If any previously unidentified sites, or remains such as artifacts, shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered, work will stop immediately and SHPD will be consulted to determine the appropriate mitigation.

Cultural Value: Environmental Setting, Impacts and Mitigation Measures

Pu'u 'Alala and the nearby and larger cone, Kanoa, are prominent topographical features on the South Hilo landscape. Like many other such features in the area, they figure in chants and legend. As discussed in Section 3.2.4, the summit is already occupied by almost a dozen towers and poles of various types, and no adverse impacts are foreseen as a result of this project. Avoidance of the larger sister cone, Kanoa, is an indirect beneficial impact of this project.

3.4 Public Facilities and Utilities

Access to the hill is provided by an easement from the mauka side of Pu'u 'Alala. The road is privately maintained, and for reasons of safety and security, access is restricted. The site is serviced by overhead three-phase power and phone lines from HELCO and GTE. Water service and wastewater treatment is not present and not necessary on the site. No adverse impact to public facilities or utilities will occur.

3.5 Secondary and Cumulative Impacts

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

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures. The site has been identified as a suitable area for a concentration of broadcasting and telecommunications facilities. This helps concentrate these uses in one area that is set back from residences and farms, which limits visual impacts and prevents exposure over FCC limits to RF radiation. No adverse cumulative impacts are expected.

3.6 Required Permits and Approvals

Construction will require the following:

County of Hawaii:

Plan Approval (pending)
Building Permit (pending)
Use Permit (the County is in the process of amending the Hawaii County Code to require a Use Permit to allow radio towers in the Open zoned district. If this amendment is adopted , a Use Permit will be required.)

Federal

Federal Communications Commission Approval (granted)
Federal Aviation Administration Approval (granted)

PART 4: DETERMINATION

The Hawaii County Planning Department has determined that impacts from the proposed project will be minimal and that the project will not significantly alter the environment. It has therefore issued a Finding of No Significant Impact (FONSI), which means that an Environmental Impact Statement is not warranted and will not be prepared.

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawaii Administrative Rules, outlines those factors agencies must consider when determining whether a project has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resource would be involved, committed or lost. The choice of the Pu'u 'Alala site helps avoid disturbing other hills or ridges and avoids spreading visual impacts.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* No restriction of beneficial uses would occur, as the site is already dedicated to broadcasting and telecommunications purposes.
3. *The proposed project will not conflict with the State's long-term environmental policies.* The State's long term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is minor and basically environmentally benign, and it is thus consistent with all elements of the State's long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The project will not have any substantial effect on the economic or social welfare of the South Hilo community or State, but will provide better radio service and provide a site for co-location of other facilities.
5. *The proposed project does not substantially affect public health in any detrimental way.* The project will not affect public health and safety in any way. The location of the tower in an area of restricted access 600 feet from farms and residences provides a very sufficient buffer to ensure that the facility will not expose any nearby land uses to radiofrequency radiation levels in excess of the FCC's limits.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.* No secondary effects are expected.
7. *The proposed project will not involve a substantial degradation of environmental quality.* The project is minor and environmentally benign, and it would thus not contribute to environmental degradation.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* The site supports entirely alien vegetation. No rare, threatened or endangered species of flora or fauna are known to exist on the project site, and none would be affected by any project activities.

9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The project is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions. Visual impacts will be concentrated on the Pu'u `Alala site and not spread to nearby hills or ridges.

10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No substantial effects to air, water, or ambient noise would occur. Brief, temporary and very minor effects would occur during construction and will be mitigated.

11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the proposed project is located in zone exposed to seismic hazard, there are no reasonable alternatives that would avoid such exposure. The project presents no additional hazard to the public, and the project is not imprudent for the County of Hawaii or the facility operator.

12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No County or State plan, including the Hawaii County General Plan, identifies important views in this area. As the summit is already dedicated to broadcasting and telecommunications purposes and is occupied by almost a dozen towers and poles of various types, no adverse impacts are foreseen as a result of this project. Avoidance of the larger sister cone, Kanoa, is an indirect beneficial impact of this project, because the new tower will offer co-location opportunities to future users who might otherwise seek out new sites.

13. *The project will not require substantial energy consumption.* Negligible amounts of energy input will be required for construction.

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

REFERENCES

- Gagne, W., and L. Cuddihy. 1990. "Vegetation," pp. 45-114 in W.L. Wagner, D.R. Herbst, and S.H. Sohmer, eds., *Manual of the Flowering Plants of Hawaii*. 2 vols. Honolulu: University of Hawaii Press.
- Giambelucca, T.W., Nullet, M.A., and T.A. Schroeder. 1986. *Rainfall Atlas of Hawaii*. Honolulu: Hawaii Department of Land and Natural Resources.
- Hawaii County Planning Department. 1989. *The General Plan, Hawaii County*. Hilo: Planning Department.
- Hawaii State Department of Business Economic Development and Tourism (DBEDT). 1997. *State of Hawaii Data Book*. Honolulu: DBEDT.
- Heliker, C. 1990. *Volcanic and Seismic Hazards on the Island of Hawaii*. Washington: U.S. GPO.
- U.S. Bureau of the Census. 1991. *1990 Census of Population, General Population Characteristics*. 1990 CP-1-13. Washington: GPO.
- U.S. Soil Conservation Service. 1973. *Soil Survey of Island of Hawaii, State of Hawaii*. Washington: U.S.D.A. Soil Conservation Service.
- University of Hawaii at Hilo, Dept. of Geography. 1998. *Atlas of Hawaii*. 3rd ed. Honolulu: University of Hawaii Press.
- Wolfe, E.W., and J. Morris. 1996. *Geologic Map of the Island of Hawaii*. USGS Misc Investigations Series Map i-2524-A. Washington, D.C.: U.S. Geological Survey.

APPENDIX 1A

CONSULTATION LETTERS PRIOR TO DRAFT EA

Federal Aviation Administration
Western/Pacific Region, AWP-520
P. O. Box 92007 WWPC
Los Angeles, CA 90009

AERONAUTICAL STUDY
No: 99-AWP-0485-OE

ISSUED DATE: 05/10/99

BUDDY GORDON
BIG ISLAND RADIO
688 KINOOLE STREET
HILO, HI 96720

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Description: ANTENNA TOWER - FM STATION KPVS
95.9 MHZ, 27 KW
Location: PEPEEKEO HI
Latitude: 19-50-09.03 NAD 83
Longitude: 155-06-33.03
Heights: 195 feet above ground level (AGL)
945 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory Circular 70/7460-1J.

This determination expires on 11/10/00 unless:

- (a) extended, revised or terminated by the issuing office or
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case the determination expires on the date prescribed by the FCC for completion of construction or on the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, frequency(ies) or use of greater power will void this determination. Any future construction or alteration,

including increase in heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at 310 725-6559. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 99-AWP-0485-OE.



H. M. Whitfield
Specialist, Airspace Branch

(DNE)



United States of America
FEDERAL COMMUNICATIONS COMMISSION
FM BROADCAST STATION CONSTRUCTION PERMIT

Official Mailing Address:

BIG ISLAND RADIO
2447 MAKIKI HEIGHTS DR
HONOLULU, HI 96822

Authorizing Official:

James D. Bradshaw
James D. Bradshaw
Supervisory Engineer
Audio Services Division
Mass Media Bureau

Grant Date: **KUN 18 1999**

Facility ID: 51240
Call Sign: KPVB

This permit expires 3:00 a.m.
local time, 36 months after
grant date specified above.

Permit File No.: BPH-990330ID

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

New Commission rules which become effective on February 16, 1999, have a bearing on this construction permit. See Report & Order, Streamlining of Mass Media Applications, MM Docket No. 98-43, 13 FCC RCD 23056, Para. 77-90 (November 25, 1998); 63 Fed. Reg. 70039 (December 18, 1998). Pursuant to these new rules, this construction permit will be subject to automatic forfeiture unless construction is complete and an application for license to cover is filed prior to expiration. See Section 73.3596.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Name of Permittee:

BIG ISLAND RADIO

Station Location:

HI-HILO

Call sign: KPVS

Permit No.: BPH - 990330ID

Frequency (MHz): 95.9

Channel: 240

Class: C2

Hours of Operation: Unlimited

Transmitter location (address or description):
1.5 km NW of Pepeko, Hawaii County, Hawaii

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670
of the Commission's Rules.

~~Transmitter output power: As required to achieve authorized ERP.~~

Antenna type: (directional or non-directional): Non-Directional

Antenna Coordinates: North Latitude : 19 50 20
West Longitude : 155 6 43

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the Horizontal Plane (kW).....:	27.0	27.0
Height of radiation center above ground (Meters).....:	44	44
Height of radiation center above mean sea level (Meters).....:	273	273
Height of radiation center above average terrain (Meters).....:	-86	-86

Antenna structure registration number: none

Overall height of antenna structure above ground
(including obstruction lighting if any): 59 Meters

Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications
is in no way to be considered as precluding additional or modified marking
or lighting as may hereafter be required under the provisions of Section
303(q) of the Communications Act of 1934, as amended.

None Required

Call sign: KPVS

Permit No.: BPH - 990330ID

Special operating conditions or restrictions:

1. The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.
2. Permittee has specified use of the antenna listed below to demonstrate compliance with the FCC radiofrequency electromagnetic field exposure guidelines. If any other type or size of antenna is to be used with the facilities authorized herein, THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. SECTION 73.1620 WILL NOT APPLY. In this case, a FORMAL REQUEST FOR PROGRAM TEST AUTHORITY must be filed in conjunction with FCC Form 302-FM, application for license, BEFORE program tests will be authorized. This request should be made at least 10 days prior to the date on which program tests are desired to commence. The request must include a revised RF field showing to demonstrate continued compliance with the FCC guidelines.

Documentation demonstrating compliance with the FCC radiofrequency field exposure guidelines may be submitted in advance of the filing of FCC Form 302-FM. The Commission's staff will review it for compliance and respond by letter stating whether automatic PTA has been reinstated.

ERI/Harris, seven sections

*** END OF AUTHORIZATION ***



FAX TRANSMITTAL

DATE: 10/29 TIME: 1050

TO: Olenna Taguchi

DIVISION/SECTION: Mayor's Office

PHONE: _____ FAX: 961-6553

FROM: Major D. Anderson

ADMINISTRATIVE SERVICES DIVISION
349 KAPIOLANI STREET
HILO, HAWAII 96720

PHONE: _____ FAX: (808) 961-8865

MESSAGE: Comments to Big Island radio proposal from El van der Ploeg, Le Blanc Investments, microwave engine project manager.

REPLY NEEDED BY: N/A

If you do not receive 2 pages (including this cover sheet), please telephone or fax immediately.

THE INFORMATION CONTAINED IN THIS FACSIMILE IS CONFIDENTIAL AND MAY ALSO BE ATTORNEY PRIVILEGED. THE INFORMATION IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHOM IT IS ADDRESSED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE TO DELIVER IT TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY USE, DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THE FACSIMILE IN ERROR, PLEASE NOTIFY US BY TELEPHONE.

REV. 08-01-96

Retention: until sent

From: Ed Van der Ploeg <EdV@leblanc-group.com>
To: Lawrence K. Mahuna (E-mail) <lkm@ilhawaii.net>
Date: Thursday, October 29, 1998 6:47 AM
Subject: Big Island Radio

Lawrence,

I have read the proposal and have the following comments:

1. From a technical perspective I do not see any real problems. With so much radio power on one site the distance and blockage between radiating elements and the amount of transmitted power are the main issues. Especially an AM station puts out a lot of power. Some towers have the effect of "putting a hole" in the radiating pattern of a broadcasting station. There are ways to counteract that and from reading the agreement that would not be the County's problem anyway. Grounding is a very important issue in this case. I recommend that the County reviews any plans for expansion of the site including a review of an interference study. You should insist on such a study and review by the County. The site layout should also be reviewed by the County from the perspective of distance between antennas. Without having any of these details it is difficult to make an assessment of the interference situation. (which is very complicated anyway)
2. As I understand the proposal, Big Island would in effect MANAGE the site and charge the co-locators a fee for being there. That has really nothing to do with broadcasting and they are going into a new business of site management. Everybody is aware nowadays of the profits to be had from long term site management. This is especially true now that the cellular and PCS companies are looking for sites and "rolling out" their networks as fast as they can. So you are going to put them in business.
3. That being the case, I think you should ask for an increased percentage, say 30% of the gross, of the revenues rather than the fixed amount for long-term ground lease. If indeed all these cellular and PCS companies are going to be using this facility then the revenue will increase substantially over the next few years and the County will benefit. The comment about tying the project to plans for upgrading the police sites has nothing to do with the issue in my view and I don't think they know what they are saying when talking about sites "already being in use" by cellular companies. In any contract the County should be held harmless for whatever they are doing and have no liabilities in the site development.

Best regards, Edward

APPENDIX 1B

COMMENTS TO DRAFT EA AND RESPONSES

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAWELO

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamohila Boulevard
Kapolei, Hawaii 98707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

October 22, 1999

Ron Terry, Ph.D. Geo Metrician
HC 2
Box 9575
Keaau, Hawaii 96749

LOG NO: 24243 ✓
DOC NO: 9910MS01

Dear Dr. Terry:

**SUBJECT: Historic Preservation Concerns for Construction of Radio Tower at Pu'u
Alala
Pepe'ekeo, South Hilo, Hawaii Island
TMK: 2-8-7:70**

Thank you for the opportunity to review this project, and accompanying Historic Preservation Division staff archaeologist Marc Smith on the September 29, 1999, site inspection. The pu'u summit has already been extensively impacted by the construction of several antenna. No significant historic structures or features were observed on the summit. Based on this site inspection we believe that the proposed construction of a radio tower will have "no effect" on significant historic sites.

If you have further questions please call Pat McCoy at 692-8029 (Honolulu), or Marc Smith at 933-0482 (Hilo).

Aloha,

A handwritten signature in black ink, appearing to read "Don Hibbard".

DON HIBBARD, Administrator
State Historic Preservation Division

MS:ah



GEO METRICIAN

Ron Terry, Ph.D.

HC 2 Box 9575
Keaau, Hawaii 96749
(808) 982-5831

December 17, 1999

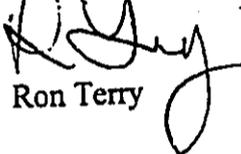
Don Hibbard, Administrator
State Historic Preservation Division
Kakuhihewa Bldg., Room 555
601 Kamokila Blvd
Kapolei, Hawaii 96707

Dear Dr. Hibbard:

Subject: Comment to Pu'u Alala Radio Tower Draft EA

Thank you for your letter of October 22, 1999 in response to our inquiry about potential historic sites in the project area in which you stated that it appeared that the proposed project would have "no effect" on significant historic sites. As our inquiry was initiated as part of the Draft EA for the project, we are treating your correspondence as a comment letter on the Draft EA.

Sincerely,


Ron Terry

Received Dec-08-99 03:43pm

from 808 961 8742 + GEO

page 1

DEC- 8-99 WED 3:52 PM Planning Dept Hilo

FAX NO. 808 961 3742

P. 1

BENJAMIN J. CAYETANO
GOVERNOR



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

238 SOUTH BERGANTINA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4185

November 10, 1999

Ms. Virginia Goldstein, Director
County of Hawaii Planning Department
25 Aupuni Street
Hilo, HI 96720

NOV 15 1999
PLANNING DEPT.
COUNTY OF HAWAII

Attention: Phyllis Fujimoto or Alice Kawaha

Dear Ms. Goldstein

Subject: Draft Environmental Assessment (EA) for Puu Alala Radio Tower, Pepeeko

In order to reduce bulk and conserve paper, we recommend printing on both sides of the pages in the final document.

Please also arrange to have a copy of the draft EA placed in the public library closest to the project site as soon as possible, requesting library staff to place the document on reserve. If this has been completed, indicate the date and location of document placement.

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

Sincerely,

GENEVIEVE SALMONSON
Director

c: Ron Terry

C10334



GEO METRICIAN

Ron Terry, Ph.D.

HC 2 Box 9575
Keaau, Hawaii 96749
(808) 982-5831

December 17, 1999

Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

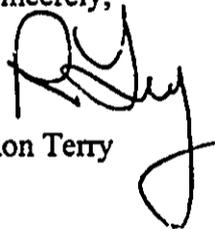
Dear Ms. Salmonson:

Subject: Comment to Pu'u 'Alala Radio Tower Draft EA

I received your letter of November 10, 1999, to Virginia Goldstein, commenting on the Draft EA for the proposed project. On behalf of Big Island Radio, I offer the following individual responses to your comments

1. *Printing on Both Sides.* We will endeavor to follow your suggestion in the future, including the Final EA.
2. *Placing Copy in Public Library.* We delivered a copy of the Draft EA to the Hilo Public Library on November 5, 1999, and to the UH-Hilo Library on November 6, 1999, both prior to the November 8, 1999, publication date of the Draft EA in the *Environmental Notice.*

Sincerely,


Ron Terry

Received Dec-08-99 03:43pm

from 808 961 8742 → GEO

page 2

DEC- 8-99 WED 3:53 PM Planning Dept Hilo

FAX NO. 808 961 8742

P. 2

Stephen K. Yamashiro
Mayor



Wayne G. Carvalho
Police Chief

James S. Correa
Deputy Police Chief

County of Hawaii
POLICE DEPARTMENT

349 Keplolani Street • Hilo, Hawaii 96720-3998
(808) 935-3371 • Fax (808) 961-2702

November 19, 1999

NOV 23 PM 3 15
PLANNING DEPT
COUNTY OF HAWAII

TO : VIRGINIA GOLDSTEIN, DIRECTOR, PLANNING DEPARTMENT
FROM : ~~Wayne G.~~ WAYNE G. CARVALHO, POLICE CHIEF
SUBJECT: DRAFT EA FOR PU'U ALALA RADIO TOWER

Please find attached a memorandum from Radio Technician Leslie Matsumoto, which comments on the draft Environmental Assessment for Pu'u Alala Radio Tower, prepared by Ron Terry, Consultant for the Hawaii County Planning Department.

cc: Ron Terry

Att.

C10651

November 19, 1999

TO : CHARLES M. CHAI, JR., MAJOR, TECHNICAL SERVICES
VIA : PROPER CHANNELS
FROM : LESLIE MATSUMOTO, RADIO TECH. II, TECHNICAL SERVICES
SUBJECT : COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT FOR
PUU ALALA RADIO TOWER, SOUTH HILO DISTRICT,
ISLAND OF HAWAII

3.2.5 Radiofrequency (RF) Electromagnetic Fields

Since Public Safety transmitters already coexist at Alala, any party who adds more transmitters at this site, should bear any costs to remedy exposure limits that exceed the FCC's required limits.

3.2.6 Construction Impacts

This section does not address cleanup after construction is completed. Although implied, it should be in written form. The contractor should restore the surrounding area to its original condition as much as possible. All unused construction materials, containers, debris, should be disposed of at the completion of construction.

Recommendations by Ed Van der Ploeg of LeBlanc Communications

Ed's comment, "You should insist on such a study (interference) and review by the County", speaks for itself. PST (Pacific Service Technologies) could assist in assessing the results from such a study.

Item 4 County resolution no. 27 99

Since an 800 Mhz radio system could possibly become a reality in the future, and since this site is earmarked as one of the 800 Mhz sites, any interference created this addition should not be the sole responsibility of the County. The County and Big Island Radio should share in the expenses to correct the interference.

GM



GEO METRICIAN

Ron Terry, Ph.D.

HC 2 Box 9575
Keaau, Hawaii 96749
(808) 982-5831

December 17, 1999

Wayne Carvalho, Chief
Hawaii County Police Department
349 Kapiolani Street
Hilo, Hawaii 96720

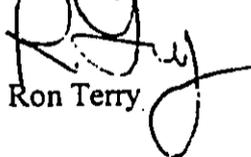
Dear Chief Carvalho:

Subject: Comment to Pu'u 'Alala Radio Tower Draft EA

I received your letter of November 19, 1999, to Virginia Goldstein commenting on the Draft EA for the proposed project. On behalf of Big Island Radio, I offer the following individual responses to your comments:

1. *Radio Frequency Electromagnetic Fields.* The FCC has reviewed the potential of the project to induce RF fields that exceed exposure limits as part of the permitting process and has determined that the limits will not be exceeded.
2. *Construction Impacts.* We have added a mitigation measure in the Draft EA that would require the contractor to properly dispose of any construction material, containers, and other debris. As the entire site has already been cleared and disturbed by construction activities, it does not seem feasible or reasonable to restore the site to its original condition. As stated in the Draft EA, the contractor will ensure that cleared areas are revegetated to prevent erosion.
3. *Existing and Future Radio Interference.* Big Island Radio has worked with the Police Department to assist them in properly shielding their equipment to avoid being subject to radio interference. We are unaware of any interference problems that are the fault of Big Island Radio. The relocation of its radio broadcasting antennae to a higher level is expected to reduce even further the potential for interference. Big Island Radio agrees to eliminate, at its expense, any interference caused by its new or existing facility.

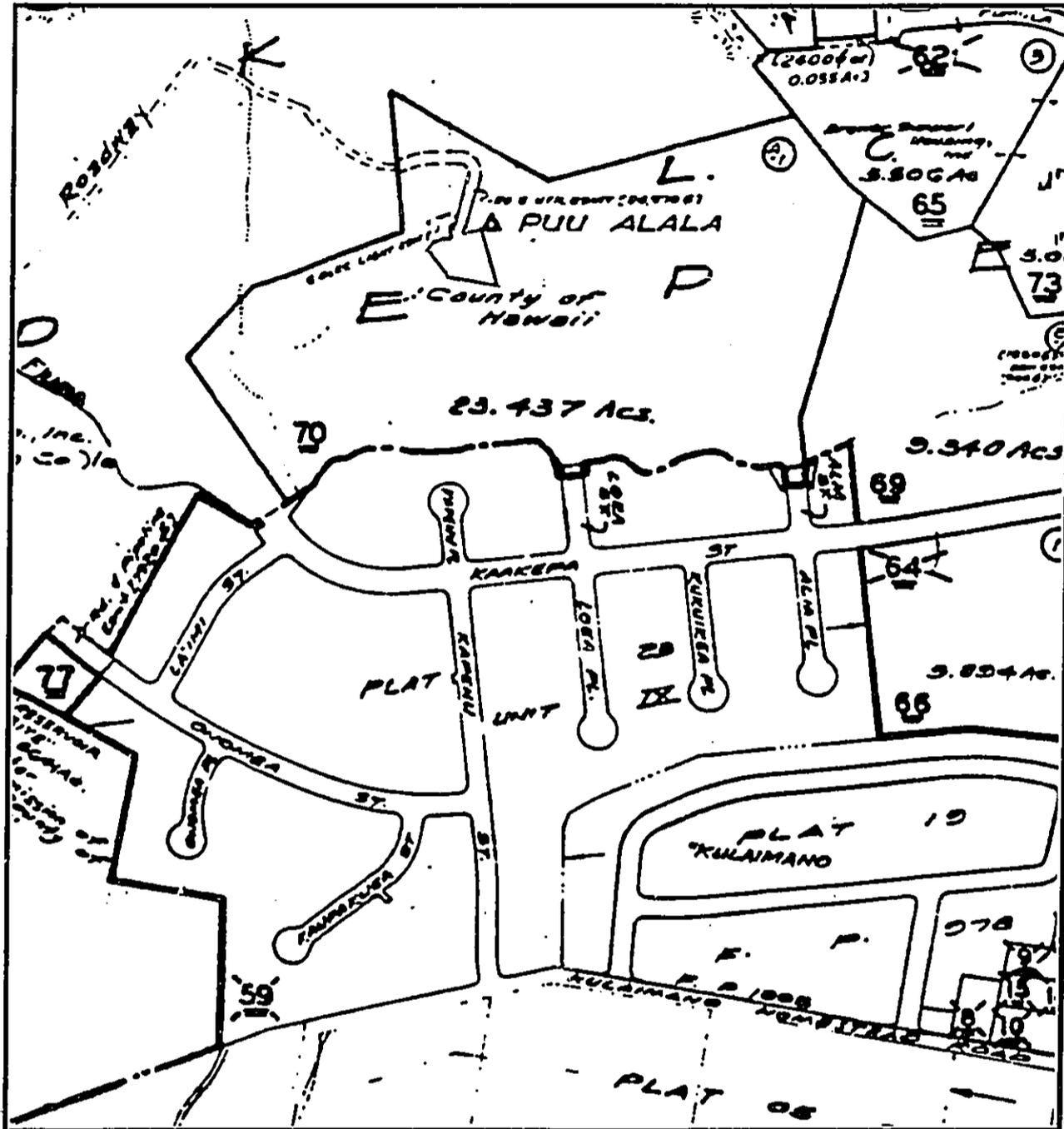
Sincerely,


Ron Terry

APPENDIX 2

FIGURES

FIGURE 2
TAX MAP



Source: County of Hawaii (por. 2-8-7)

North ↑

Scale: 1:5,000

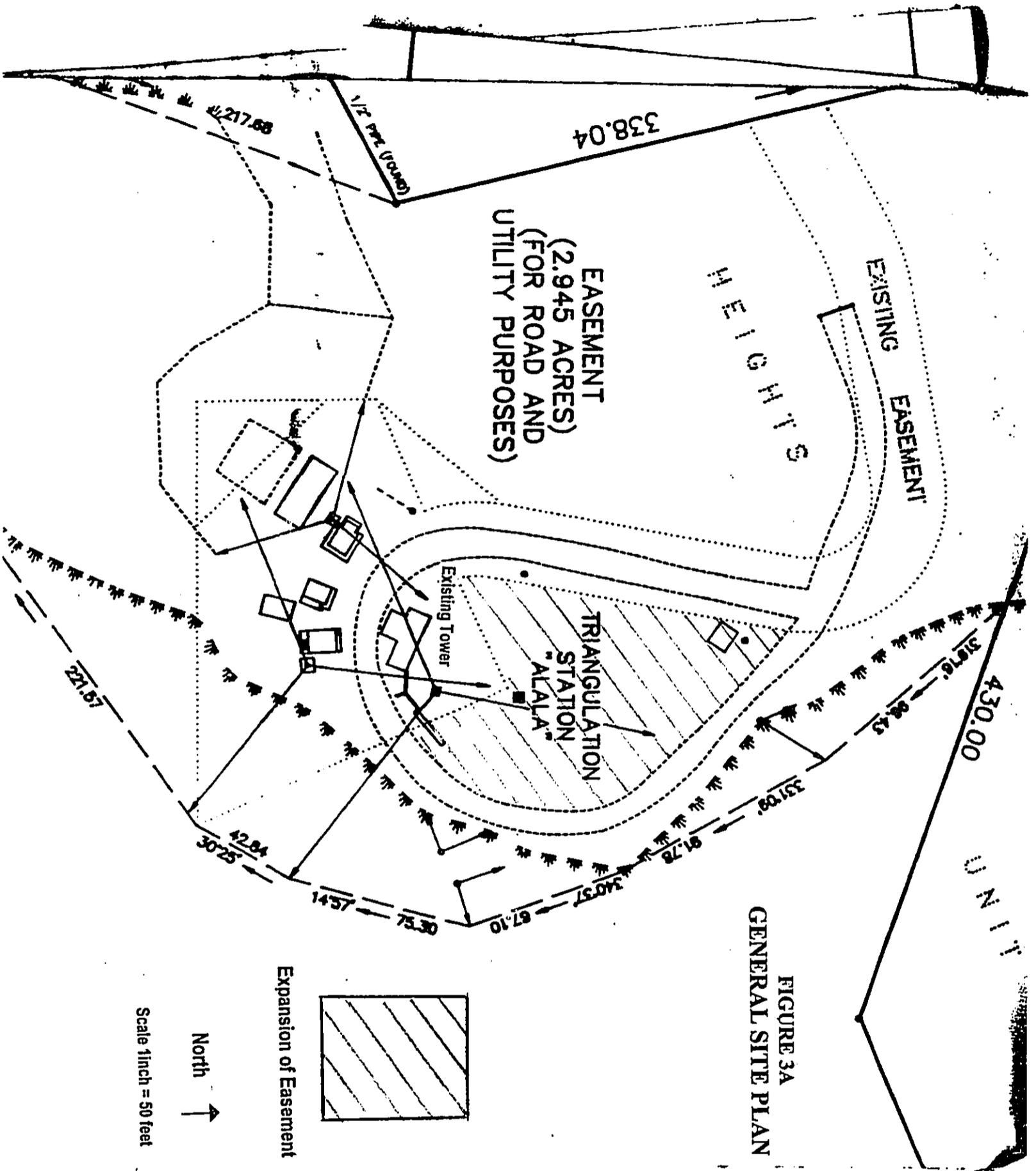
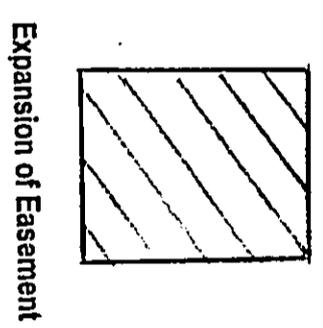
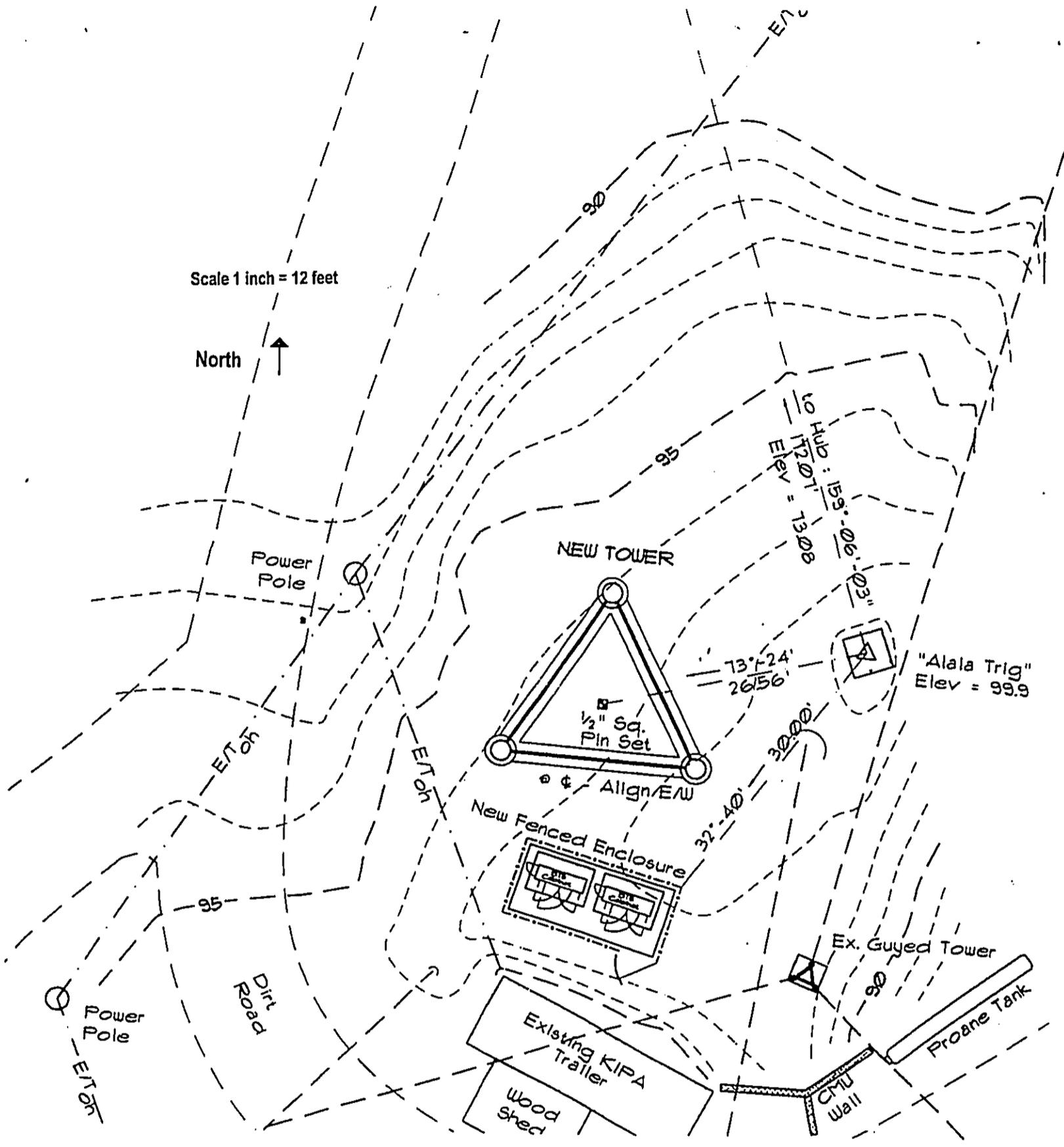


FIGURE 3A
GENERAL SITE PLAN



North ↑

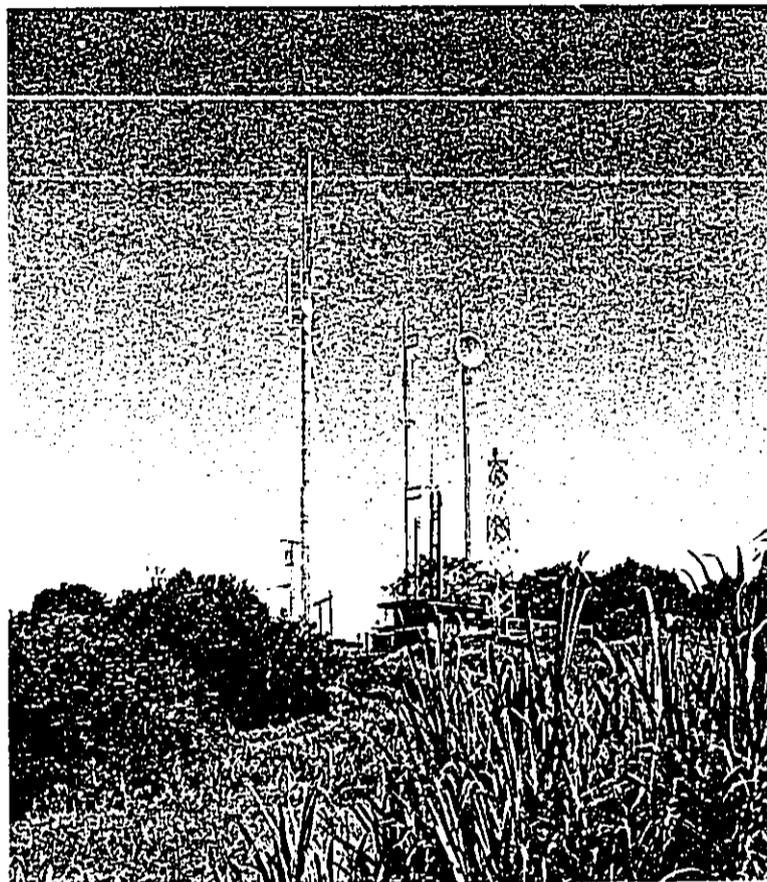
Scale 1inch = 50 feet



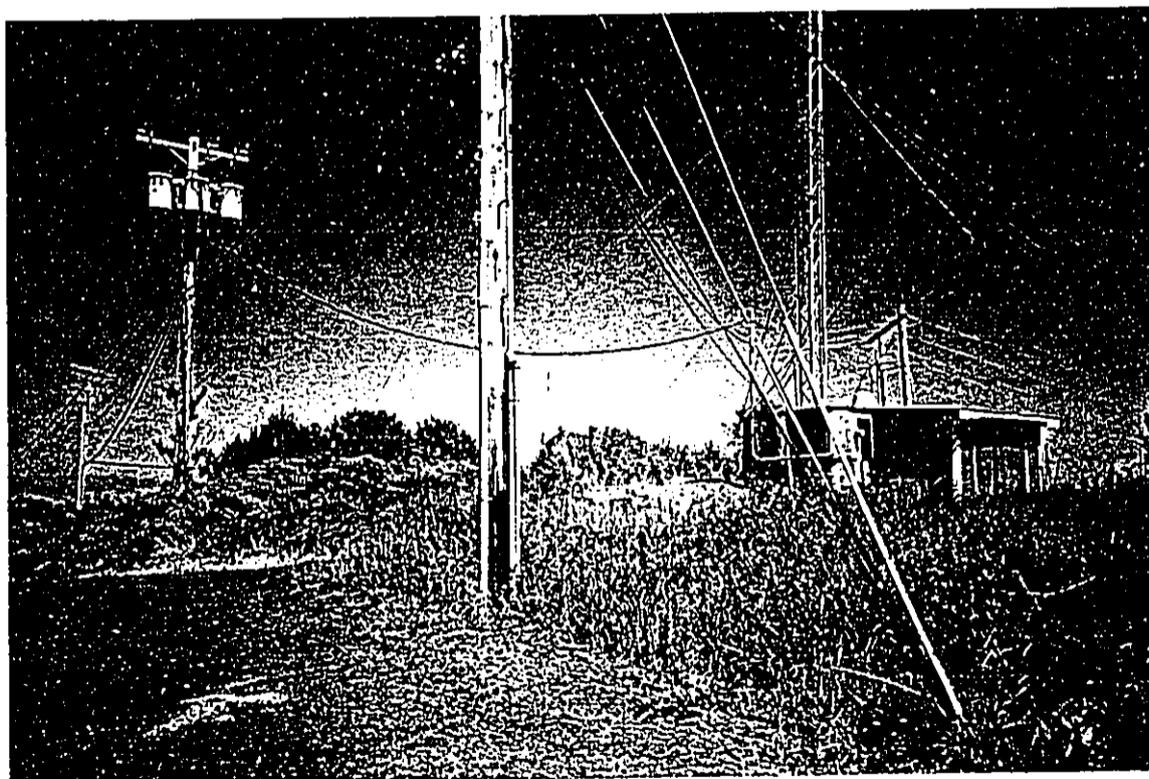
**FIGURE 3B
DETAILED SITE PLAN**

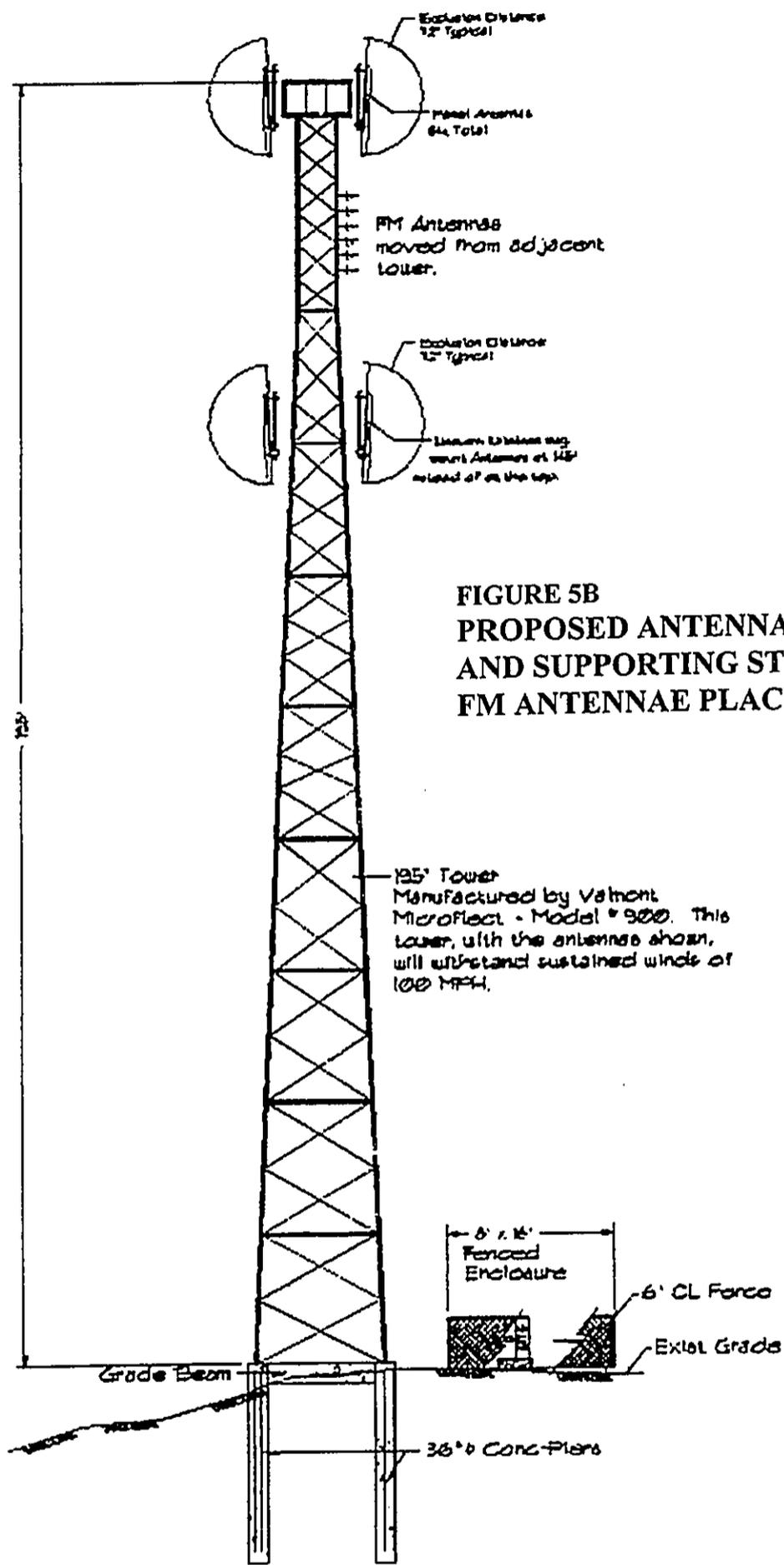
FIGURE 4
PHOTOGRAPHS OF PU'U 'ALALA

View from mauka
access road.



Summit of hill, showing
base of existing tower and
equipment shed.





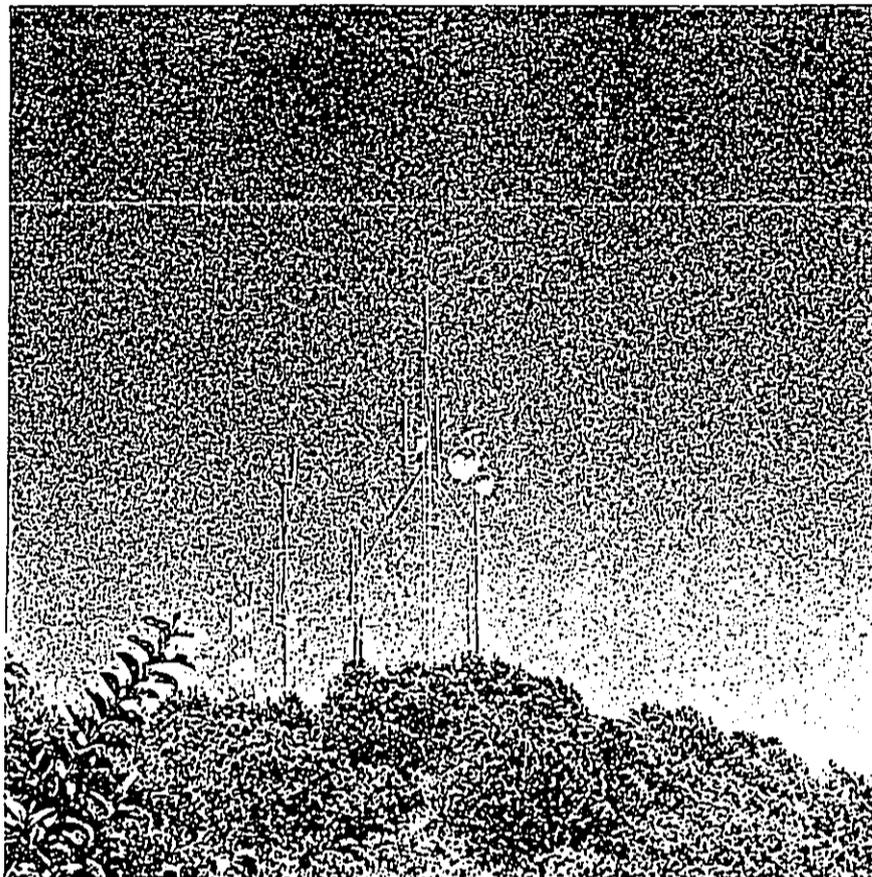
**FIGURE 5B
PROPOSED ANTENNA
AND SUPPORTING STRUCTURE:
FM ANTENNAE PLACEMENT**

125' Tower
Manufactured by Valmont
Microflex - Model # 900. This
tower, with the antennas shown,
will withstand sustained winds of
100 MPH.

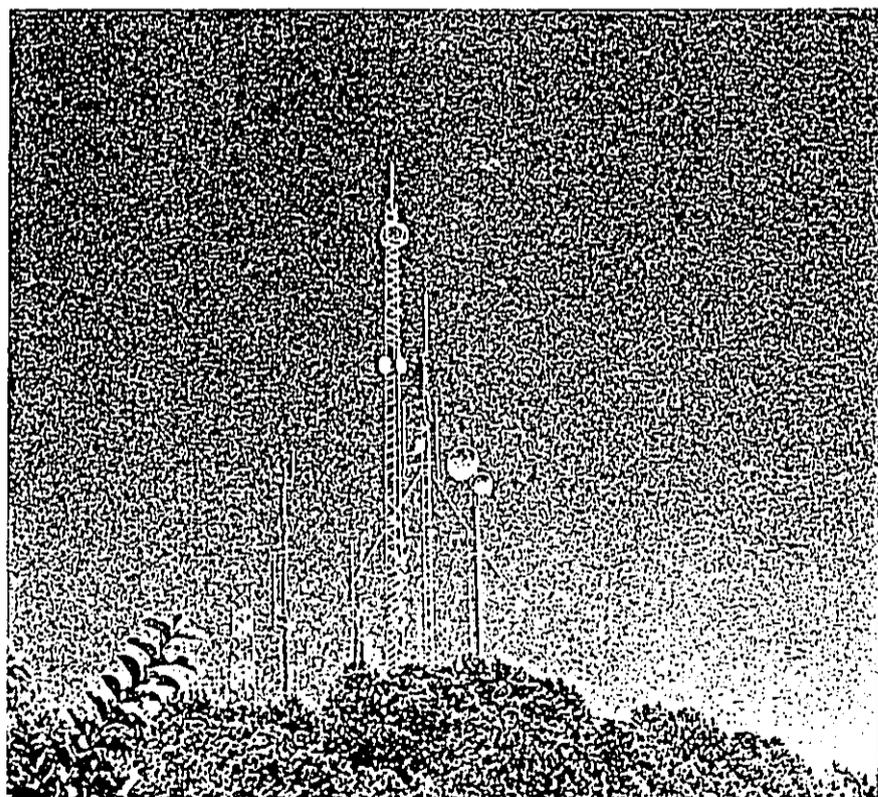
2
9-1
Elevation
Scale: 1/8" = 1' - 0"

FIGURE 6
VISUAL SIMULATION OF PROPOSED TOWER

Before



After



APPENDIX 3

COUNTY COUNCIL RESOLUTION 27-99

ADOPTED FEBRUARY 17, 1999

AL KONISHI
County Clerk



DONALD IKEDA
Deputy County Clerk
CONSTANCE R. KIRIU
Legislative Auditor

OFFICE OF THE COUNTY CLERK

County of Hawai'i
Hawai'i County Building
25 Aupuni Street
Hilo, Hawai'i 96720
Telephone: (808) 961-8255
Facsimile: (808) 961-8912

March 15, 1999

Mr. Hugh Gordon, General Manager
Big Island Radio
688 Kinoole Street
Hilo, HI 96720

Enclosed is a copy of Resolution 27-99, Draft 2, which was adopted by the Council of the
County of Hawai'i on Wednesday, February 17, 1999.


Al Konishi
COUNTY CLERK

Enc.

COUNTY OF HAWAII STATE OF HAWAII

RESOLUTION NO. 27 99
(DRAFT 2)

RESOLUTION AUTHORIZING THE AMENDMENT OF GRANT OF EASEMENT DATED APRIL 15, 1993 TO BIG ISLAND RADIO SITUATE AT PEPEEKEO AND MAKAHANALOA, SOUTH HILO, HAWAII, TMK: 3RD/2-8-07:70(PORZION).

WHEREAS, the County of Hawaii is the owner of that certain parcel of land described as the Kulaimano Park Site situate at Pepeekeo and Makahanaloa, South Hilo, Hawaii, further identified as Tax Map Key: 3rd/2-8-07:70, more particularly described in Exhibit "A," attached hereto and made a part hereof; and

WHEREAS, said county property is subject to a perpetual, non-exclusive easement for road and utility purposes, said easement, a portion of the area more commonly referred to as Puu Alala, and more particularly described in Exhibit "B," attached hereto and made a part hereof; and

WHEREAS, by Resolution No. 38-93, adopted on April 7, 1993, the Mayor was authorized to execute a grant of easement over the area described in Exhibit "B" in favor of the Big Island Broadcasting Company, Ltd., a Hawaii corporation, for the purpose of maintaining and operating a radio communications facility at Puu Alala; and

WHEREAS, a grant of easement dated April 15, 1993 was executed to Big Island Broadcasting Company, Ltd., a Hawaii corporation; and

WHEREAS, by Assignment of Easement dated June 2, 1997 and consented to on June 25, 1997, the subject Grant of Easement was assigned from Big Island Broadcasting Company, Ltd., a Hawaii corporation to Big Island Radio, a Hawaii limited partnership; and

WHEREAS, Puu Alala currently houses several communication towers including a tower owned by the County of Hawaii for use by the Police Department, Fire Department and Department of Water Supply, an old Mauna Kea Sugar Company, Inc. tower now used by Western Pacific Communications for 2-way radio purposes, a new pole owned by Mobile One for paging service, and a 120 foot tower owned by Big Island Radio for its FM radio station; and

WHEREAS, Big Island Radio would like to improve its FM signal coverage and proposes to construct a new 195 foot tower; and

WHEREAS, news of Big Island Radio's proposed new tower construction has attracted inquiries from several cellular companies expressing an interest to locate their antennas on the new tower; and

WHEREAS, the proposed 195 foot tower will be capable of accommodating up to ten (10) additional users, each requiring about a 10' x 10' to 15' x 15' area of ground space for an enclosure to house their equipment; and

WHEREAS, the co-location of antennas at one site is preferable over the proliferation of towers within a geographically strategic community; and

WHEREAS, the existing towers and pole makes the Puu Alala site the best choice for expansion along the Hilo Coast to accommodate the near term needs of the telecommunications industry; and

WHEREAS, the recent land surveys for the new Department of Water Supply tower and building has disclosed that certain existing facilities at Puu Alala are not within the original area encumbered under that certain grant of easement dated April 15, 1993 currently encumbered to Big Island Radio; and

WHEREAS, an amendment to that certain grant of easement dated April 15, 1993 currently encumbered to Big Island Radio will resolve the problem of encroachment outside of the original easement area and will provide additional area required for ground space for the additional users of the proposed 195-foot tower.

NOW THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE COUNTY OF HAWAII, that the Finance Director or his authorized representative, is hereby authorized to amend that certain Grant of Easement dated April 15, 1993 currently encumbered to Big Island Radio to resolve the encroachment problem and to provide additional ground space for the additional users of the proposed 195 foot tower subject to but not limited to the following terms and conditions:

1. A provision allowing for the sublease, permit or use of space by others on the existing tower or any other tower which may be constructed by Big Island Radio, its successors or assigns at Puu Alala, subject to consent by the County of Hawaii.
2. A provision requiring the payment by Big Island Radio, its successors or assigns to the County of Hawaii, on a monthly basis, of twenty percent (20%) of the gross compensation received by Big Island Radio, its successors or assigns from any sub-lessee, permittee, or user of space on the tower(s) situate at the subject site together with an itemized statement. Information on the statement shall include but not be limited to the name of the sub-lessee, the sub-lessee's monthly payment, the 20% monthly payment due to the County of Hawaii and the total payment due to the County of Hawaii.
3. A provision requiring that Big Island Radio, its successors, assigns, sub-lessees, permittees, renters or users of space shall not use or affect the subject property in

any way which interferes with the existing or future telecommunications operations or any other operations of the County of Hawaii or its agencies.

4. A provision reserving to the County of Hawaii, the right to further grant and convey to others, easement rights over, under and across the subject property without the consent of Big Island Radio, its successors or assigns. The provision shall provide that such right will be exercised in such a manner that will not interfere unreasonably with the operations of Big Island Radio, its successors or assigns.
5. A provision that it shall be the responsibility of Big Island Radio to apply for and obtain at Big Island Radio's cost and expense, all governmental approvals, permits and licenses necessary to Big Island Radio's use of the subject premises.
6. A provision that Big Island Radio, its successors or assigns, shall provide to the County of Hawaii, at no cost or expense, a first priority space anywhere on the proposed 195-foot tower except within the top eighty (80) feet of said tower, anywhere on the existing 120-foot tower upon the timely relocation of the existing equipment, or on one of its supporting booms, together with sufficient ground space, for the telecommunication requirements of the County of Hawaii. Said space selections shall be conducted in a timely manner and shall be at the sole determination of the County of Hawaii.
7. A provision that Big Island Radio, its successors or assigns, and its sublessees, permittees or users of space, shall fully comply with all applicable statutes, laws, ordinances, rules and regulations concerning worker safety and health during periods of construction, re-construction, repair and/or maintenance on the subject premises.

8. Such other terms and conditions which are in the best interest of the County of Hawaii.

BE IT FURTHER RESOLVED, that the Clerk of the County of Hawaii transmit copies of this resolution to the Honorable Stephen K. Yamashiro, Mayor of the County of Hawaii, and to Hugh E. Gordon, General Manager of Big Island Radio.

Dated at Hilo, Hawaii, this 17th day of February, 1999.

INTRODUCED BY:



COUNCIL MEMBER, COUNTY OF HAWAII

COUNTY COUNCIL
County of Hawaii
Hilo, Hawaii

I hereby certify that the foregoing RESOLUTION was by the vote indicated to the right hereof adopted by the COUNCIL of the County of Hawaii on February 17, 1999.

ATTEST:



COUNTY CLERK CHAIRMAN & PRESIDING OFFICER

ROLL CALL VOTE

	AYES	NOES	ABS	EX
ARAKAKI	X			
CHUNG	X			
ELARIONOFF	X			
JACOBSON	X			
LEITHEAD-TODD	X			
PISICCHIO	X			
SMITH	X			
TYLER	X			
YAGONG	X			
	9	0	0	0

Reference: C-89.01/FC-34

RESOLUTION NO. 27 99 (DRAFT 2)

KULAIMANO PARK SITE

Comprised of
Lot A-1 (Being a portion of Kulaimano Heights, Unit IX);
Parcel "A" (Beings portions of Lot 2, Kulaimano Heights
Community Center Subdivision, and, Alia Street,
Kulaimano Heights, Unit IX); and,
Parcel "B" (Being portion of Loea Street, Kulaimano Heights,
Unit IX).

Being Portions of R.P. 7192, L.C. Aw. 8559-B,
Apana 17 and 18 to William C. Lunalilo
Situates at Pepekeo and Makahanaloa,
South Hilo, Island of Hawaii, Hawaii

Beginning at the east corner of this parcel of land, at the
center of Waimaauou Stream, at the northwest corner of Lot 2-A of
Kulaimano Heights Community Center Subdivision, the coordinates
of said point of beginning referred to Government Survey
Triangulation Station "ALALA" being 192.80 feet North and 868.57
feet East, and running by azimuths measured clockwise from True
South:

1. 7°38'30" 570.52 feet along Lot 2-A, Kulaimano Heights
Community Center Subdivision;
2. 345°04' 173.26 feet along Lot 2-A, Kulaimano Heights
Community Center Subdivision and
Alia Street;
3. 75°04' 50.00 feet along Alia Street;
4. 165°04' 52.99 feet along Alia Street;

Thence along the center of an un-
named stream for the next two (2)
courses, the direct azimuths and
distances being:

5. 78°39'30" 36.62 feet along Alia Street;
6. 82°53'50" 445.61 feet along Lots 2, 3, 4, 5, 6, 7 and
Loea Street, Kulaimano Heights,
Unit IX;
7. 345°04' 31.00 feet along Loea Street;

_____ "A"

8. 75°04' 50.00 feet along Loea Street;

9. 165°04' 37.00 feet along Loea Street;

Thence along the center of an un-named stream for the next three (3) courses, the direct azimuths and distances being:

10. 88°35'10" 259.16 feet along Loea Street and Lots 8, 13 and 14, Kulaimano Heights, Unit IX;

11. 77°19'20" 264.58 feet along Lots 14, 15 and 16, Kulaimano Heights, Unit IX;

12. 46°00'20" 153.14 feet along Lot 20, Kulaimano Heights, Unit IX;

13. 48°26' 17.00 feet along Lot 20, Kulaimano Heights, Unit IX;

14. 140°42'30" 434.00 feet along Lot A-2, Kulaimano Heights, Unit IX;

15. 214°03'30" 228.69 feet along Lot A-2, Kulaimano Heights, Unit IX;

16. 242°05' 383.53 feet along Lot A-2, Kulaimano Heights, Unit IX;

17. 167°06'30" 340.04 feet along Lot A-2, Kulaimano Heights, Unit IX;

18. 289°48'30" 432.00 feet along Lot A-2, Kulaimano Heights, Unit IX;

19. 246°51' 586.00 feet along Lot A-2, Kulaimano Heights, Unit IX to the center of Waimaaou Stream;

20. 313°45'30" 212.00 feet along the center of Waimaaou Stream, along Lot 3, Kulaimano Heights, Unit VIII, Increment 2;

21. 300° 44'

54.21 feet along the center of Waimaauou Stream, along Lot 3, Kulaimano Heights, Unit VIII, Increment 2 to the point of beginning and containing an area of 23.437 Acres.



Department of Public Works
Engineering Division
County of Hawaii

Ronald M. Matsumura

Ronald M. Matsumura
Licensed Professional Land
Surveyor No. 5630

Hilo, Hawaii
Jan. 20, 1993
TMK: 2-8-07:70

Note: Compiled from Murray Smith and Associates
maps dated Sept. 29, 1976 and March 6, 1976
(revised Feb. 13, 1978).

ROAD AND UTILITY EASEMENT

Being a Portion of Lot A-1, Kulaimano Heights, Unit IX,
Being also a Portion of R.P. 7192, L.C. Aw. 8559-B,
Apanas 17 and 18 to William C. Lunalilo
Situate at Pepekeo and Makahanaloa,
South Hilo, Island of Hawaii, Hawaii

Beginning at the northwest corner of this easement parcel,
on the northwestern boundary of Lot A-1, Kulaimano Heights, Unit
IX, the coordinates of said point of beginning referred to
Government Survey Triangulation Station "ALALA" being 123.14 feet
North and 239.74 feet West and running by azimuths measured
clockwise from True South:

1. 241°22' 47.60 feet;

Thence along a curve to the right
having a radius of 115.00 feet,
the chord azimuth and distance
being:

2. 250°38' 37.04 feet;

3. 259°54' 73.62 feet;

Thence along a curve to the right
having a radius of 55.00 feet,
the chord azimuth and distance
being:

4. 315°11' 90.42 feet;

5. 10°28' 120.76 feet;

Thence along a curve to the left
having a radius of 30.00 feet,
the chord azimuth and distance
being:

6. 358°18'15" 12.64 feet;

7. 245°59' 48.86 feet;

8. 336°18' 136.30 feet;

9. 90°08' 121.50 feet;

10. 135°50' 72.50 feet;

EXHIBIT "B"

11. 179° 26' 20.19 feet;

12. 245° 59' 49.46 feet;

Thence along a curve to the right
having a radius of 60.00 feet,
the chord azimuth and distance
being:

13. 175° 45' 18" 30.47 feet;

14. 190° 28' 120.76 feet:

Thence along a curve to the left
having a radius of 25.00 feet,
the chord azimuth and distance
being:

15. 135° 11' 41.10 feet;

16. 79° 54' 73.62 feet;

Thence along a curve to the left
having a radius of 85.00 feet,
the chord azimuth and distance
being:

17. 70° 38' 27.38 feet;

18. 61° 22' 56.05 feet;

19. 167° 06' 30" 31.17 feet to the point of beginning and
containing an area of 24,970
feet.



Department of Public Works
Engineering Division
County of Hawaii

A handwritten signature in cursive script that reads "Ronald M. Matsumura".

Ronald M. Matsumura
Licensed Professional Land
Surveyor No. 5630

Hilo, Hawaii
Jan. 20, 1993
TMK: 2-8-07: 70 (por.)