

*Communication Facility at Nuuanu Reservoir #4*

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



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

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LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

Mr. Gary Gill, Director  
Office of Environmental Quality Control  
220 South King Street, 4th Floor  
Honolulu, Hawaii 96813

Dear Mr. Gill,

Subject: Negative Declaration for Telecommunication Relay Facility at Nuuanu Reservoir No. 4, Nuuanu, Oahu, TMK 2-2-54: 1

The Department of Land and Natural Resources has reviewed the comments received during the 30-day public comment period which began on May 23, 1996. The agency has determined that this project will not have significant environmental effect and has issued a negative declaration. Please publish this notice in the OEQC Bulletin as soon as possible.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final EA. Please contact Don Horiuchi at 587-0381 if you have any questions.

Very truly yours,

*Charlene E. Uchida for*  
Dean Uchida, Administrator  
Land Division

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*1996-07-23-0A-FEA-Communications Facility at* JUL 23 1996  
*Nuuanu Reservoir #4* FILE COPY

**HONOLULU CELLULAR TELEPHONE COMPANY**

**FINAL ENVIRONMENTAL ASSESSMENT**

**FOR COMMUNICATIONS FACILITY**

**AT NUUANU RESERVOIR #4**

## FINAL ENVIRONMENTAL ASSESSMENT

### 1. Identification of Applicant

Honolulu Cellular Telephone Company  
500 Kahelu Avenue  
Mililani, Hawaii 96784  
Attn.: Robert D. Osias, General Manager

Correspondence and communications should be addressed to:

Michael H. Lau, Esq.  
Oshima, Chun, Fong & Chung  
841 Bishop Street, Suite 400  
Honolulu, Hawaii 96813  
Phone: (808) 528-4200

Honolulu Cellular Telephone Company is a New York general partnership registered to do business in the State of Hawaii, and is regulated by the Hawaii Public Utilities Commission. Applicant currently provides cellular telephone service for the Honolulu Metropolitan Service Area which includes the entire island of Oahu

### 2. Identification of Approving Agency

Department of Land and Natural Resources  
State of Hawaii  
P. O. Box 621  
Honolulu, Hawaii 96809

This Final Environmental Assessment is prepared pursuant to Hawaii Revised Statutes §343-5(a)(2) which requires the preparation of an environmental assessment for actions which propose to use lands classified as Conservation Districts by the State Land Use Commission. The Department of Land and Natural Resources administers uses of Conservation District lands.

### 3. Identification of Agencies Consulted

Land Use Commission  
State of Hawaii  
335 Merchant Street, Room 104  
Honolulu, Hawaii 96813

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

Land Division  
Planning and Technical Services Branch  
Department of Land and Natural Resources  
1151 Punchbowl Street  
Kalanimoku Building, Room 220  
Honolulu, Hawaii 96813

Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Board of Water Supply  
630 S. Beretania Street  
Honolulu, Hawaii 96813

Applicant notes that following the publication of Applicant's Draft Environmental Assessment, comments were received from the City and County Planning Department, the City Department of Land Utilization, the State Historic Preservation Division, the State Department of Budget and Finance, the State Division of Forestry and Wildlife and the Office of Environmental Quality Control. Copies of those comments and Applicant's responses are attached hereto as Exhibit D and incorporated herein by reference. Where applicable, this Final Environmental Assessment incorporates the comments and/or recommendations from the respective agencies.

**4. General Description of the Action's Technical, Economic, Social, and Environmental Characteristics**

**a. Proposed Action.**

Under a license agreement entered into with the Honolulu Board of Water Supply, Applicant will have use of approximately 960 square feet of land located near the entrance gate to Nuuanu Reservoir No. 4 located along the Pali Highway within TMK: 2-2-54:01 (1st Div.) for a cellular communications facility. The proposed facility is located on State land which is under the jurisdiction of the Board of Water Supply. As such, the License Agreement is subject to the approval of the Department of Land and Natural Resources.

The cellular equipment to be utilized at the site initially will consist of a bi-directional amplifier system which amplifies radio signals from a host cell site (in this case, the signals from Applicant's Kuakini Hospital cell site located at 347 Kuakini Street will be amplified). The system will include two (2) small antennas attached to separate pipes set in the ground. Total height of the antennas will be approximately 10 feet above ground level. The amplifier cabinet, with dimensions of approximately 35" x 30" x 68" high, will be mounted on top of a concrete pad of approximately nine square feet.

Rather than incur the cost of bringing in electricity supplied by Hawaiian Electric (which is estimated to cost approximately \$50,000), Applicant plans to power the equipment through the use of solar energy. This is feasible due to the relatively low power requirements of the amplifier equipment. Current plans call for the use of 18-20 photo voltaic modules (panels) which will be mounted on an aluminum frame and will occupy an area of approximately 140 square feet. The battery and charger units which will be contained in a fiberglass type shelter (60" x 74" x 58" high) supplements the photovoltaic modules. Based on current calculations, Applicant believes that 18 - 20 photo voltaic panels are required due to the normal cloudy conditions of the area. Elevations detailing the proposed improvements are set forth in Exhibit A attached hereto.

As cellular telephone usage increases and technology changes, Applicant may desire to replace the bi-directional amplifier equipment with microcell equipment. Applicant therefore requests authority under its Application to modify its equipment in the future, subject to Applicant submitting the appropriate plans to the DLNR at the time of the proposed modifications. A microcell, unlike the bi-directional amplifier, generates its own radio signals and is not dependent on a host cell site. A typical microcell has 22 channels and can handle 20 simultaneous cellular telephone conversations at any one time. The microcell equipment is self-contained within a metal cabinet with dimensions of approximately 35" x 30" x 84" high, or only 16" higher than the bi-directional amplifier cabinet. The concrete pad from the amplifier cabinet will be large enough to accommodate the future installation of microcell equipment. No additional land area will be required. If and when Applicant determines that installation of microcell equipment is necessary or desirable, appropriate plans will be submitted to DLNR for approval. Applicant will not proceed to make changes until approval has been received. For illustrative purposes, elevations detailing the proposed microcell equipment is set forth in Exhibit B attached hereto.

If and when Applicant decides to install microcell equipment at the site, commercial electric power to the site would be required from Hawaiian Electric instead of solar power. At that time, the battery and charger cabinet housing, along with the photovoltaic panels and structure will be removed. Use of an outside power source will require the installation of a small transformer at the site.<sup>1</sup> Based on initial discussions with Hawaiian Electric, it is Applicant's understanding that it will be feasible to run power lines to the site from nearby existing power poles. In addition to power, Applicant will also require a telephone line (T-1) from GTE Hawaiian Telephone to connect the project site to Applicant's cellular network if microcell equipment is subsequently installed. Like the power line, Applicant understands the telephone line can be run to the site on the nearby utility poles.

Because Applicant is not aware of any specific requests for co-location at this site, Applicant's environmental assessment does not include any plans to co-locate other communications facilities at this site. However, recognizing the State of Hawaii's desire to not have a proliferation of antenna sites, Applicant does not oppose the co-location of other communications companies at or adjacent to this site. Applicant has in the past at several other locations entered into agreements with other communications companies to co-locate their facilities with Applicant's. After resurveying the area, Applicant notes that there is sufficient land area within and surrounding Applicant's Licensed Area to accommodate other communications companies. Any future co-location proposals at this location will be subject to (a) the communications company applying for a license from the Board of Water Supply and (b) obtaining the necessary permit(s) from the Department of Land and Natural Resources.

b. Need for Proposed Action.

The purpose of this facility is to provide clear and uninterrupted cellular telephone service between the Honolulu side of the Pali Tunnel is through the upper Nuuanu areas. At present, cellular coverage is sporadic and sometimes unclear, especially near the Nuuanu Reservoir No. 4 area. The proposed facility is anticipated to improve cellular telephone coverage. The improved cellular coverage will further promote public safety by allowing motorists the ability to seek assistance if stranded and to report

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<sup>1</sup> Applicant may at some point in the future switch to Hawaiian Electric supplied power even if the microcell equipment is not installed on the site if, following actual deployment of the equipment, it is determined that there is insufficient sunlight to generate the necessary electricity to power the bi-directional amplifier equipment.

accidents or other traffic hazards or conditions along the heavily traveled Pali Highway.

c. Technical Characteristics of Proposed Action.

Cellular telephones work by receiving and transmitting signals between a telephone unit and a cell site. A full cell site typically consists of a tower with antennas connected to low-powered receivers and transmitters housed in an electronics equipment building, and a stand-by generator which keep the cell site and related equipment operating when there is an electrical failure. Because of the low power output, the coverage area provided by a cell site is limited by distance and terrain. The bi-directional amplifier, which Applicant proposes to install at the site, will not need to be installed in conjunction with a tower, electronics equipment building or emergency stand-by generator. The amplifier equipment, however, have the effect of increasing the effective range of Applicant's Kuakini Hospital host cell site by allowing the signal from the host cell site to be amplified in a particular area.

In designing a cellular telephone system, coverage is overlapped to allow a cellular call to be "handed off" when the signal strength weakens as the customer travels through a cell's coverage area and moves through to the next coverage area. This enables a cellular telephone user to move between coverage areas without interruption in the call. Because of the area's topography, uninterrupted coverage is presently not available on a continuous basis in the upper Nuuanu Valley since there is no effective overlap between the Kuakini Hospital cell site's coverage area and that of the next adjacent host cell sites located at Kaneohe or Keolu Hills. Installation of the proposed bi-directional amplifier equipment will minimize gaps in coverage which presently exist in the upper Nuuanu Valley.

d. Economic Characteristics.

Construction of this proposed facility will cost approximately \$21,000. Although the proposed action will not have a significant direct economic impact on the community, the provision of enhanced cellular telephone services will have a positive economic impact for those doing business who must regularly travel through this busy Pali Highway corridor.

e. Social Characteristics.

The proposed action will improve the ability of commuters to communicate while on the road, resulting in less time wasted while in traffic, etc. More importantly, it provides a reliable means of

communications in times of emergencies including accidents, cases of stalled vehicles and other road hazards.

5. **Description of the Affected Environment**

a. Existing Land Use Designations.

The project is located within the Protective subzone of the State Land Use Conservation District. All uses within the Conservation District are regulated by the State Department of Land and Natural Resources under Chapter 13-5 of the Hawaii Administrative Rules. The objective of the Protective subzone is to protect valuable resources in such designated areas as restricted watersheds; marine, plant and wildlife sanctuaries; significant historic, archaeological, geological, and volcanological features and sites; and other designated unique areas. Identified land uses within the Protective subzone include transmission facilities for public utilities.

The proposed site is zoned P-1, Preservation on the City and County of Honolulu Development Plan Land Use Map. As such, the uses and development standards are governed by the appropriate State agencies, and not the City's Land Use Ordinance. A site plan detailing the location of the project site is attached hereto as Exhibit C.

b. Surrounding Land Uses.

The land in the vicinity of the project site is zoned P-1, Preservation. The Pali Highway runs along the northwest side of the project site and is designated P-2, Preservation. (See attached Exhibit C for a map of the surrounding land areas.)

c. Topography.

The project site is essentially level and is located at an elevation of approximately 1,000 feet. The surrounding land is gently sloping. A general topography of the project site is shown in Exhibit C.

The Nuuanu Valley is surrounded by steep cliffs of the Koolau Range which rises to an elevation of 3,150 feet above mean sea level near the headwaters of the Lulumahu Stream.

d. Soils.

Soil at the project site is classified by the U.S. Department of Agriculture Soil Conservation Service as Loleka's silty clay with 3 and 8 percent slopes. These series consist of well-drained soils on terraces and fans on



the windward side of the island. These soils, which developed in old, gravely alluvium and colluvium are geographically associated with Alaeloa and Waikane soils. Surface layers are dark-brown silty clay, strongly acidic and roughly 10 inches thick. the subsoil layer is between 46 to 70 inches thick. This soil type is characterized by moderately rapid permeability and slow runoff with low erosion hazard potential. This soil can be used for pastures, homesites, orchards, and truck crops. The natural vegetation of this soil consist of guava, Christmas berry, California grass, Hilo grass, and rice grass.

e. Flood Hazards.

The proposed site is located in a hazard Zone D flood area according to the National Flood Insurance Rate Map. Zone D indicates that flood hazards are undetermined. Nuuanu Reservoir No. 4 is located adjacent to the project site. Three additional reservoirs are located in the upper valley. These reservoirs are owned and operated by the Honolulu Board of Water Supply and control the occasional flooding which occurs in the area.

f. Flora and Fauna.

The Nuuanu reservoirs are considered wetland areas which are associated with plants that can sustain wet conditions. The project site may encounter exotic plants planted by some private party. The chances of encountering any rare plant species in the project area are minimal.

The unusually wet areas provide habitats for certain types of wildlife. Water birds, such as the endemic Hawaiian coot, Hawaiian gallinule, and Hawaiian duck are sighted at the Nuuanu reservoirs. All three endemic species are endangered. A few migratory birds visit the reservoir, but are neither threatened or endangered. The project site is located at least 1,000 feet from the closest banks of the reservoir. Therefore, because of the significant distance between the project site and the reservoir, there should be little, if any, impact to the water birds.

The Nuuanu Reservoir contains tilapia, china catfish, gold fish, mosquito fish, small mouth bass and the o'opu.

g. Archeology.

Pursuant to Applicant's submission to the State Historic Preservation Division, the State Historic Preservation Division has issued a "no effect" clearance regarding the impact from Applicant's proposed project since there are no historic sites located at or immediately adjacent to the project

site. In the event that a historic site is encountered during any stage of development, all work will be stopped and mitigative measures will be implemented in coordination with the State Historic Preservation Division.

h. Geology.

The Hawaiian Archipelago is mostly volcanic in nature. Oahu is the third largest island in the archipelago and was formed during the shield-building period of the Koolau and Waianae volcanoes. Extensive erosion carved deep valleys in the post-shield-building stage, followed by a quiescent period. A resurgence of minor post-erosional activity called the Honolulu Volcanic Series occurred along the southeast portions of the Koolau shield including Nuuanu Valley and resulted in the eruption of lava, ash and cinders, some of which became interbedded with terrestrial and marine sediments along the coastal plain.

Nuuanu Valley is the result of the extensive erosion that followed the shield-building period of the Koolau Volcano. The valley was cut by Nuuanu Stream flowing westward from the former Koolau summit area, which has since been destroyed by erosion. Gravel and clay formed by weathering and erosion were deposited along the flood plain and onto the coastal plain. During the following glacial periods, sea level rose and fell depositing alluvium and other marine debris. Resumption of volcanic activity following a profound quiescent period resulted in the Nuuanu Valley being filled with lava, ash and cinders. This post-erosional volcanic activity contributed to the flatness of Honolulu's major valleys.

i. Climate.

Upper Nuuanu Valley has a climate that is wetter and cooler than that of the coastal plains. Between 1890 and 1983, average annual rainfall in the area was 127.4 inches. Rainfall during this period ranged from 78.2 to 191.1 inches per year. Rain is typically heavy during the months of August through December.

The average temperature recorded during the coolest month at Honolulu International Airport is 72.6 F; the average temperature during the warmest month is 81 F. The temperature at the project site would be lower because of increase in elevations and greater cloud cover.

The prevailing winds are the northeast tradewinds which blow 75 percent of the time. These are more turbulent due to a funneling effect caused by the valley.

j. Watershed Area.

Reservoir No. 4 and the resulting project site is within the Honolulu Watershed Forest Reserve. Under Applicant's proposed plans, only a small percentage of the total 960 square feet of the project site will utilize concrete as footings for the equipment cabinet and associated improvements. Where possible, Applicant will be utilizing gravel within the project site. Therefore, the watershed's collection qualities will be unaffected by Applicant's use.

6. **Summary of Impacts on Affected Environment and Alternatives Considered**

a. Impacts.

The proposed facility is anticipated to substantially improve cellular telephone coverage in the upper Nuuanu Valley Pali Highway areas. The improved cellular coverage will have a positive impact in promoting public safety by allowing motorists the ability to seek assistance if they become stranded and to report accidents or other traffic hazards on this heavily traveled roadway. The construction of the proposed facility will also confer a benefit to the traveling public by providing clear and uninterrupted cellular telephone coverage from downtown to the Honolulu side of the Pali Tunnels.

The proposed project will generate additional impacts typical of site preparation and construction activities, however these impacts are anticipated to be minimal given the small scale of the project and the short time period that will be required to complete the required improvements (currently estimated to be approximately 2 - 4 weeks). Following construction, it is anticipated that ongoing impacts will be minimal again due primarily to the small scale of the project.

Noise impacts from the construction activities are expected to be minimal since there are no residences located near the project. All operations will be carried out in conformance with the State Department of Health's regulations regarding noise. There should be insignificant levels of dirt generated from vehicle movement and final grading at the project site since access to the site is paved and due to the fact that the total area of the site is only 960 square feet. No measurable impact on traffic is expected as a result of the project either during or after construction.

The construction activities are not likely to have an adverse impact on the endemic waterbirds at the Nuuanu Reservoir due to the significant distance of the project site to the nearest banks of the reservoir (1000+ feet). The Nuuanu Reservoir wetlands are not expected to be impacted by

development due to the small scale of the project. The proposed antennas will be only approximately 10 feet high and therefore, due to the existing vegetation and the proposed landscaping, it is anticipated that the project will be barely visible from the Pali Highway. Finally, since only a small percentage of the project site will be covered with concrete, the area's watershed qualities will be unaffected.

Applicant notes that a Conservation District Use Permit was recently approved for the Board of Water Supply's Nuuanu Upper Aerator Well Control Station (OA-2767, September 27, 1995). That project site is located approximately 1 mile from Applicant's project site and is a significantly larger project and involves heavy construction.

b. Alternatives.

Selection of this site for the communications facility was the result of careful deliberation and the elimination of possible alternative sites. There are a number of considerations in selecting a site for this cellular telephone communications facility. The most essential ones are: (1) it must be within the signal coverage area of Applicant's Kuakini Hospital host cell site; (2) it must be of sufficient elevation to provide desired coverage (a lower ground elevation would result in a higher antenna); (3) it must be positioned at a location which would provide improved cellular coverage to the area near Nuuanu Reservoir No. 4; and (4) the site must be accessible for the periodic maintenance checks which must be conducted by Applicant's personnel.

The alternative sites for the communications facility which were considered but not selected due to the above criteria are as follows:

1. Nuuanu Pali Drive--Upper End
2. Pali Tunnel Entrance
3. Pali Highway--Upper End, Honolulu side

7. **Mitigation Measures**

Due to the small scale of the proposed project (including the fact that the planned antennas are not anticipated to exceed 10 feet in height above ground level, it is presently not believed that any mitigation measures will be required.

8. **Determination**

Pursuant to the "Significance Criteria" set forth in Hawaii Administrative Rules §11-200-12, the proposed facility would not have a significant effect on the

environment and, therefore, a finding of no significant impact should issue and preparation of an environmental impact statement should not be required.

a. No Irreversible Commitment To Loss Or Destruction Of Any Natural Or Cultural Resource Would Result.

The site of the proposed facility is small, approximately 960 square feet. Moreover, the area of the concrete pad will take up only a small percentage of the site. Construction of the proposed improvements will involve a minimum of clearing and grading of the project site and there will be no alteration of the existing contours of the site. Also, paved access to the project site is already in place, thus insuring a minimum of disturbance to the land surrounding the site. Where possible, Applicant will be utilizing gravel within the project site, thereby further minimizing the impact on the watershed's collection qualities. Alteration of natural resources, in other words, is minimal.

Additionally, the State Historic Preservation Division of the Department of Land and Natural Resources has determined that there are no historic or archaeological sites located within the project site. Enjoyment of the area will not be hindered by the addition of the proposed facility since the reservoir area currently has limited public access.

b. Would Not Curtail The Range Of Beneficial Uses Of The Environment.

The project site is located adjacent to Honolulu Watershed Forest Reserve Reservoir No. 4, and, as such, it is unlikely that the presently limited public access will be opened up for a range of other uses. The proposed project site itself is small, containing approximately 960 square feet, and the concrete pad will be but a small percentage of the site. Where possible, Applicant will be utilizing gravel within the project site, thereby further minimizing the impact on the watershed's collection qualities. Thus, impact on the beneficial uses of the area is minimal.

c. Does Not Conflict With The State's Long-Term Environmental Policies, Goals, Or Guidelines.

The State's environmental policies and guidelines are set forth in Chapter 344, HRS. Two broad policies are espoused: conservation of natural resources and enhancement of the quality of life. The project is small in scale, both in terms of the project site and the alteration and/or use of natural resources. Additionally, Applicant plans to power the equipment through the use of solar energy.

On the other side of the coin, the project will enhance the quality of life by providing clear and uninterrupted cellular telephone service between the Honolulu side of the Pali Tunnel through the upper Nuuanu areas. At present, cellular coverage is sporadic and sometimes unclear, especially near the Nuuanu Reservoir No. 4 area. The proposed facility is anticipated to improve cellular telephone coverage, which will further promote public safety by providing a reliable means of communications in times of emergencies, including accidents, cases of stalled vehicles and other road hazards. It will also improve the ability of commuters to communicate while on the road, resulting in less time wasted while in traffic, etc.

d. Economic Or Social Welfare Of The Community Or State Would Not Be Substantially Affected.

Impacts of the proposed project on the economic and social welfare of the community are primarily positive impacts.

Construction of the proposed facility will cost approximately \$21,000. Although the proposed action will not have a significant direct economic impact on the community, the provision of enhanced cellular telephone services will have a positive economic impact for those doing business who must regularly travel through this busy Pali Highway corridor.

The proposed facility is anticipated to improve cellular telephone coverage, which will further promote public safety by providing a reliable means of communications in times of emergencies, including accidents, cases of stalled vehicles and other road hazards. It will also improve the ability of commuters to communicate while on the road, resulting in less time wasted while in traffic, etc.

e. Does Not Substantially Affect Public Health.

There are no public health issues associated with the proposed project. It will, however, improve communications capabilities, providing a reliable means of communications in times of emergencies, including accidents and other road hazards.

f. No Substantial Secondary Impacts, Such As Population Changes Or Effects On Public Facilities.

The proposed facility is anticipated to improve cellular telephone coverage, which is presently sporadic and sometimes unclear. It should have no secondary impacts, such as on population or public facilities.

g. No Substantial Degradation Of Environmental Quality.

The site of the proposed facility is small, approximately 960 square feet. Moreover, the area of the concrete pad will take up only a small percentage of the site. Construction of the proposed improvements will involve a minimum of clearing and grading of the project site and there will be no alteration of the existing contours of the site. Also, paved access to the project site is already in place, thus insuring a minimum of disturbance to the land surrounding the site. Where possible, Applicant will be utilizing gravel within the project site, thereby further minimizing the impact on the watershed's collection qualities.

h. Does Not Involve Commitment To Larger Actions, Nor Would Cumulative Impacts Result In Considerable Effects On The Environment.

Applicant is the non-wireline cellular telephone provided licensed by the FCC to provide commercial cellular service for the Honolulu Metropolitan Service Area, which encompasses the entire island of Oahu and the immediate surrounding waters. Applicant's cellular network is presently comprised of a Mobile Telephone Switching Office ("MTSO"), a microwave system utilized for interconnecting some of the cell sites to the MTSO, 30 full cell sites, 5 microcells, and 3 cell enhancers.

Under Applicant's present system configuration, there is substantially uninterrupted cellular coverage throughout the island of Oahu and surrounding waters, with the exception of a few "pocket" areas where it is difficult to provide high quality coverage due to topography of the area. In addition to the proposed project, Applicant's master plan calls for additional cell sites, cell enhancers or microcells to improve coverage in areas where "pockets" of weak signal strength exist and as customers usage increases.

Approval of this proposed project does not involve a commitment to Applicant's master plan or to any other project that may be proposed by Applicant in the future.

With the addition of the site adjacent to the Nuuanu Reservoir No. 4, Applicant will have a total of five (5) sites located within the State Conservation District. With the exception of one or two sites required to provide continuous cellular coverage along the H-3 Freeway, which may or may not require sites to be deployed within the State Conservation District, Applicant does not anticipate any future telecommunications sites to be built within the State conservation districts.

i. No Rare, Threatened, Or Endangered Species Or Their Habitats Will Be Affected.

The Nuuanu reservoirs are considered wetland areas which are associated with plants that can sustain wet conditions. The chances of encountering any rare plant species in the project area are minimal.

The unusually wet areas provide habitats for certain types of wildlife, Water birds, such as the endemic Hawaiian coot, Hawaiian gallinule, and Hawaiian duck are sighted at the Nuuanu reservoirs. All three endemic species are endangered. However, because the project site is located at least 1,000 feet from the closest banks of the reservoir, there should be little, if any, impact to the water birds. Once construction of the facility is completed (estimated construction time is 2 to 4 weeks), human activity at the project site will be limited to once or twice monthly maintenance checks of the facility by Applicant's personnel.

No endangered aquatic species are found in Nuuanu Reservoir No. 4.

j. Air Quality, Water Quality Or Ambient Noise Levels Will Not Be Detrimentially Affected.

Air quality and ambient noise levels may be minimally impacted during construction of the facility (estimated 2 to 4 weeks). Very little grading will be necessary as the project site is relatively flat or, in the case of the photovoltaic panels, will be installed to conform to the existing contours. Grubbing is anticipated to be limited to approximately 300 square feet of existing hau branches.

Any earth that is removed in laying the foundation for the equipment will be used within the project site. The area immediately surrounding the facility will be covered with gravel, and other graded areas (if any) will be revegetated to prevent soil erosion, thereby minimizing the impact on the watershed's collection qualities.

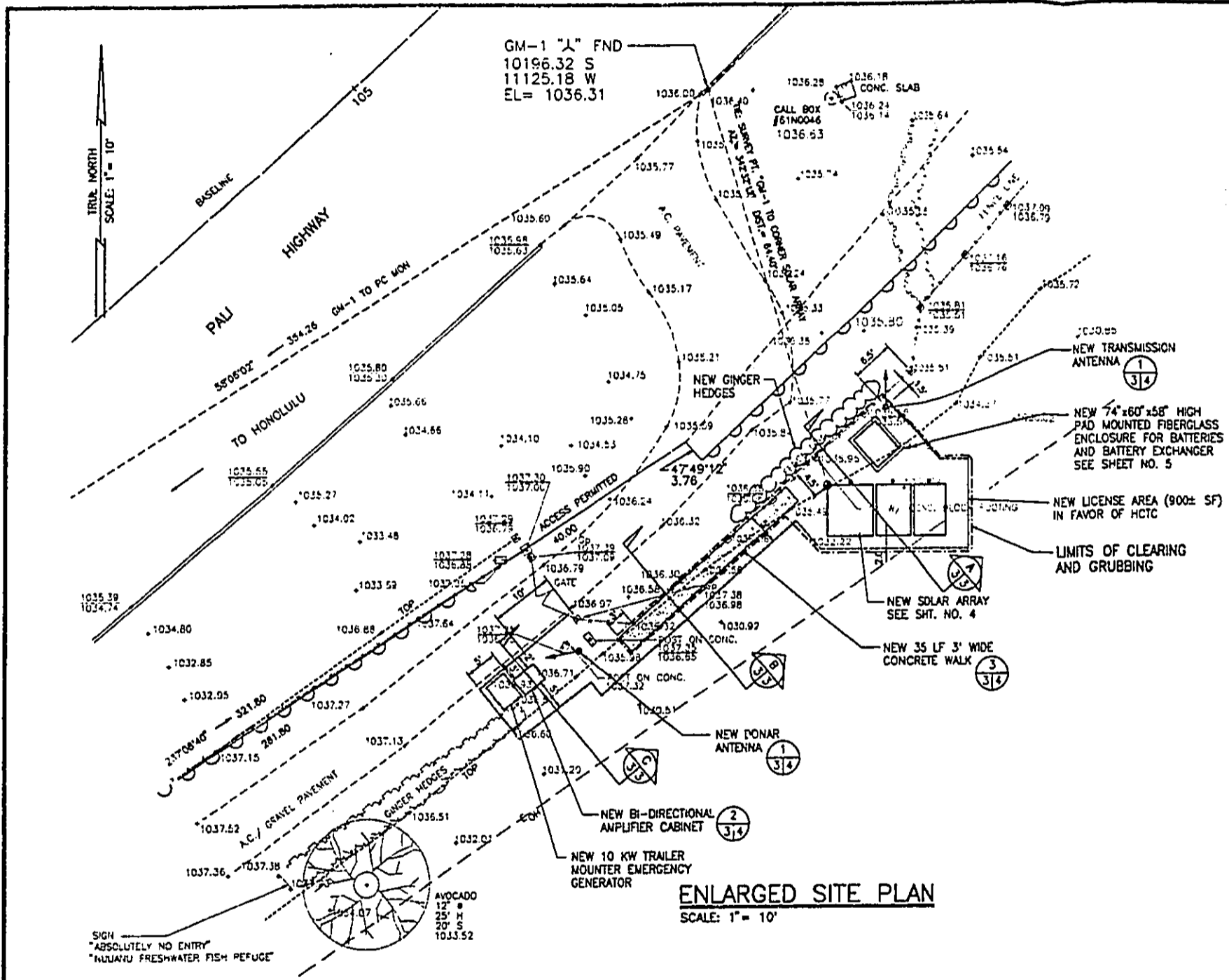
Department of Health regulations governing air quality, water quality, and ambient noise levels will be complied with.

k. Project Will Not Affect Environmentally Sensitive Areas, Such As Flood Plains, Tsunami Zones, Erosion Prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters Or Coastal Waters.

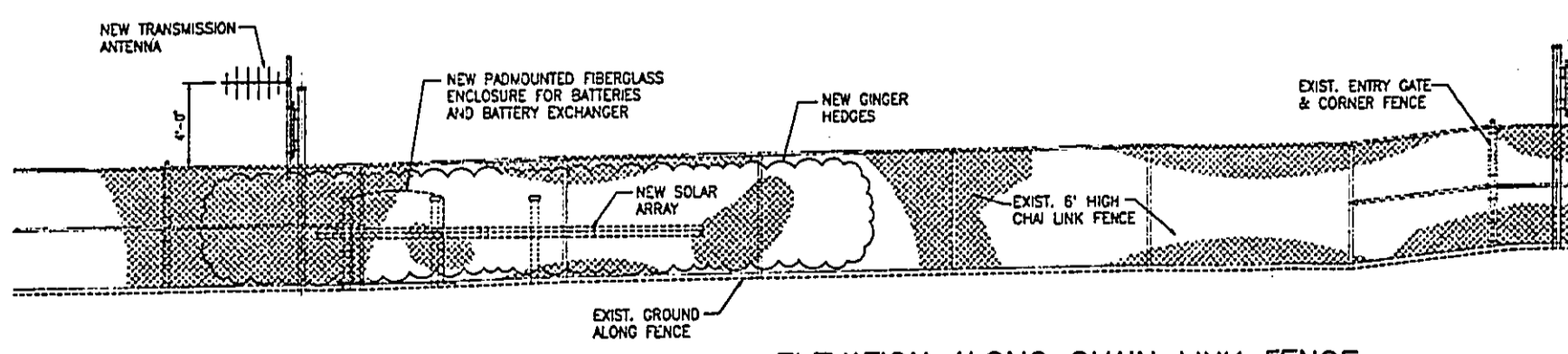
No environmentally sensitive areas will be affected. The project site is relatively flat and well inland from the coast. It is adjacent to Nuuanu Reservoir No. 4, which, along with three other reservoirs located in the



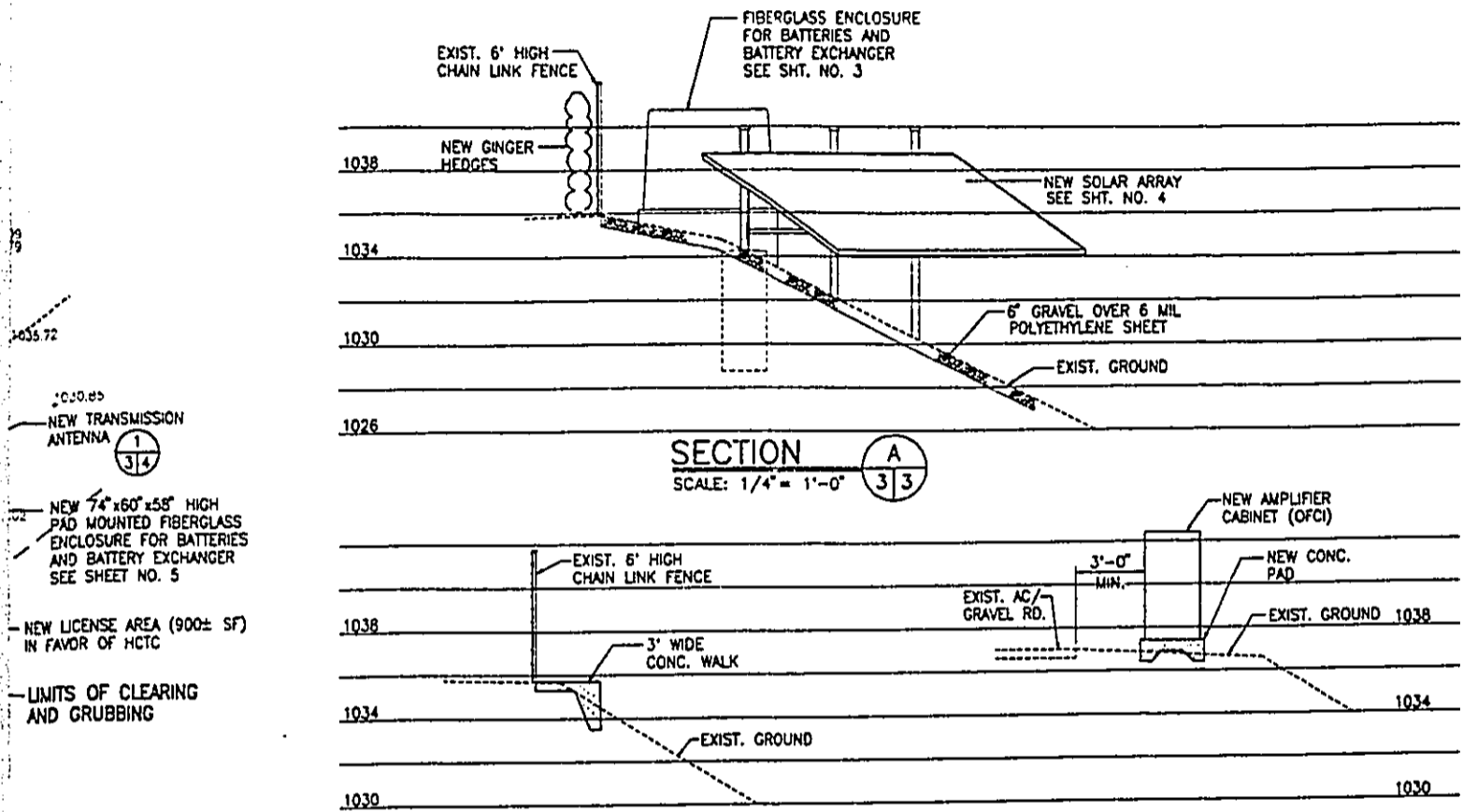
upper valley, controls the occasional flooding which occurs in the area. Disturbance of the site will be kept to a minimum and the area immediately surrounding the facility will be covered with gravel, and other graded areas (if any) will be revegetated to prevent soil erosion, thereby minimizing the impact on the watershed's collection qualities.



**ENLARGED SITE PLAN**  
SCALE: 1" = 10'

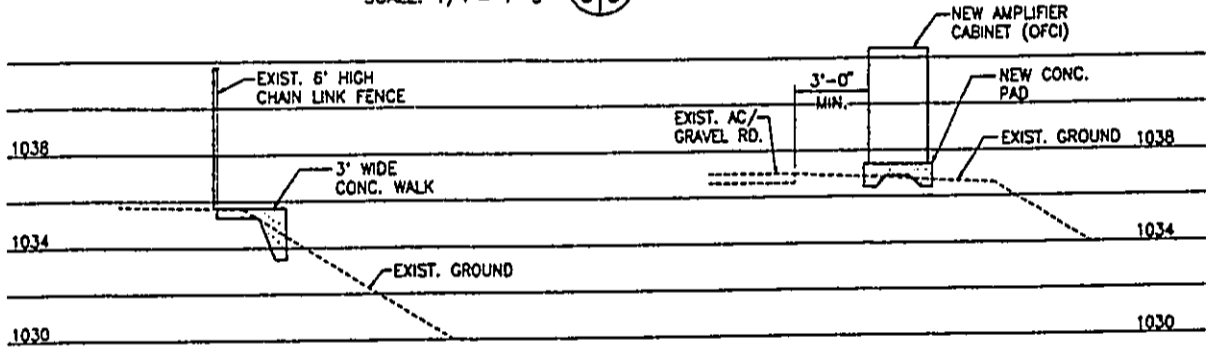


**ELEVATION ALONG CHAIN LINK FENCE**  
SCALE: 1/4" = 1'-0"



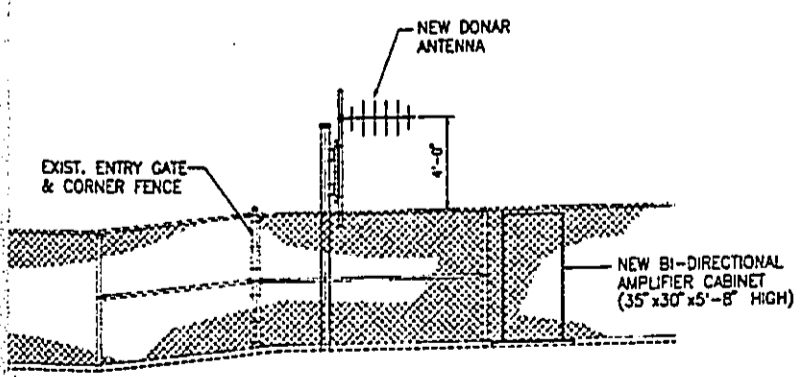
SECTION A  
SCALE: 1/4" = 1'-0"

- NEW TRANSMISSION ANTENNA (1/314)
- NEW 74" x 60" x 55" HIGH PAD MOUNTED FIBERGLASS ENCLOSURE FOR BATTERIES AND BATTERY EXCHANGER SEE SHEET NO. 5
- NEW LICENSE AREA (900± SF) IN FAVOR OF HCTC
- LIMITS OF CLEARING AND GRUBBING



SECTION B  
SCALE: 1/4" = 1'-0"

SECTION C  
SCALE: 1/4" = 1'-0"

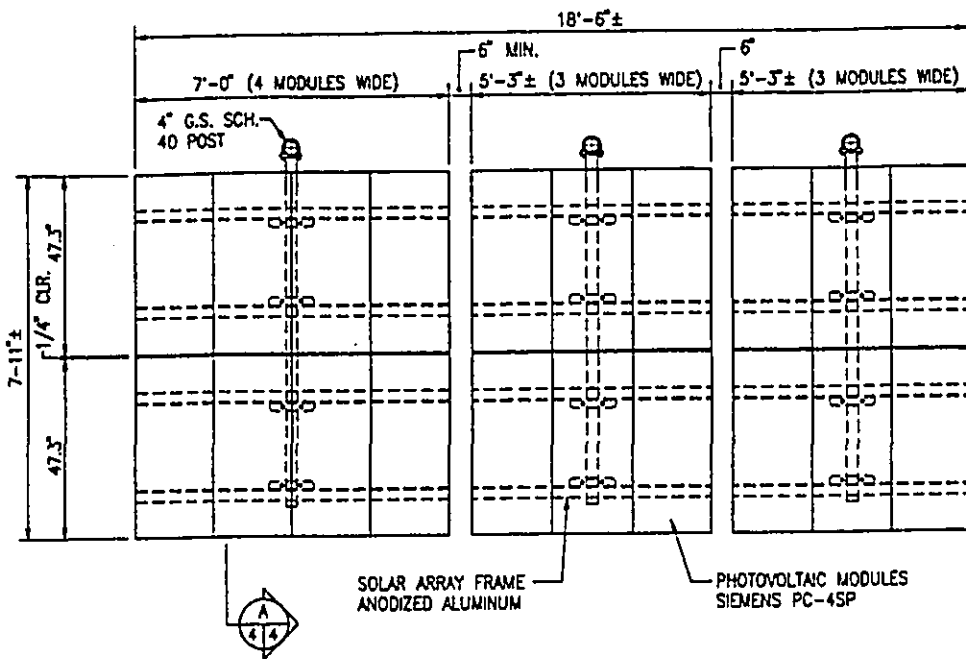


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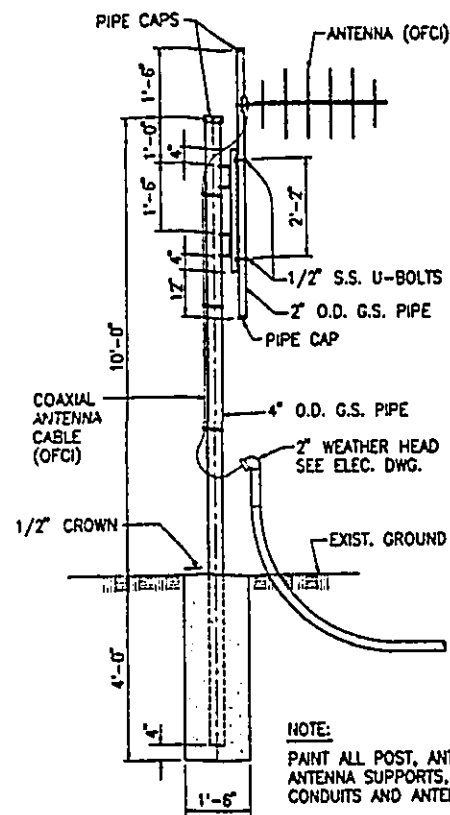
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**ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.**  
 ENGINEERS, SURVEYORS HONOLULU, HAWAII  
*Honolulu Cellular*  
**HCTC PALI HIGHWAY BI-DIRECTIONAL AMPLIFIER STATION**  
 NUUANU, HONOLULU, OAHU, HAWAII  
**ENLARGED SITE PLAN SECTIONS AND SITE ELEVATION**

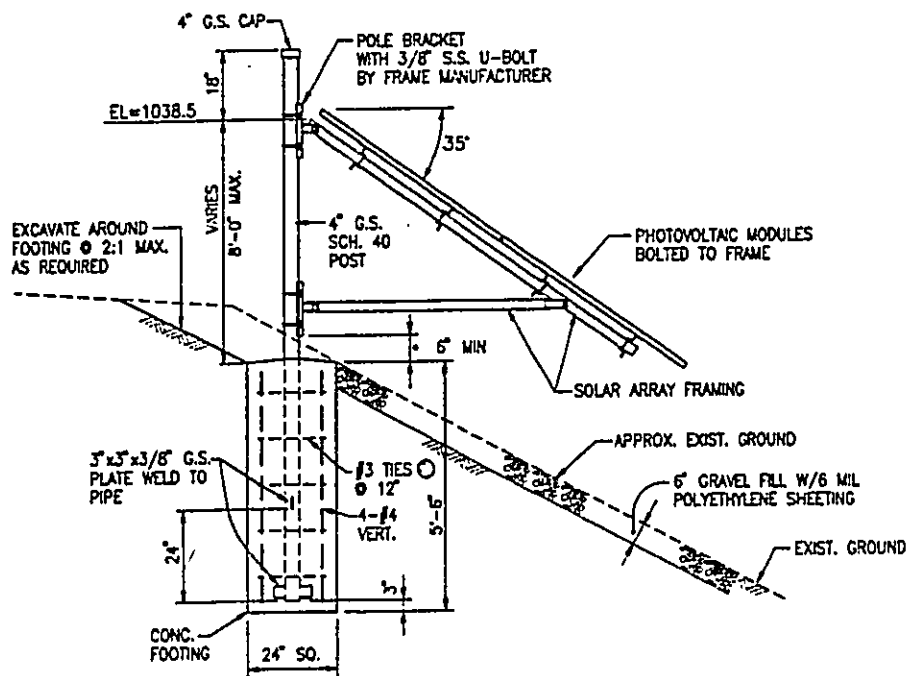


**PLAN - SOLAR ARRAY**  
SCALE: 1/2" = 1'-0"

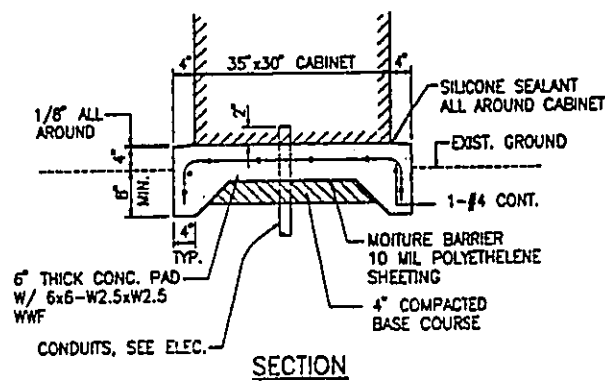


**ELEVATION**  
SCALE: 1/2" = 1'-0"

**ANTENNA SUPPORT DETAIL** 1/3/4

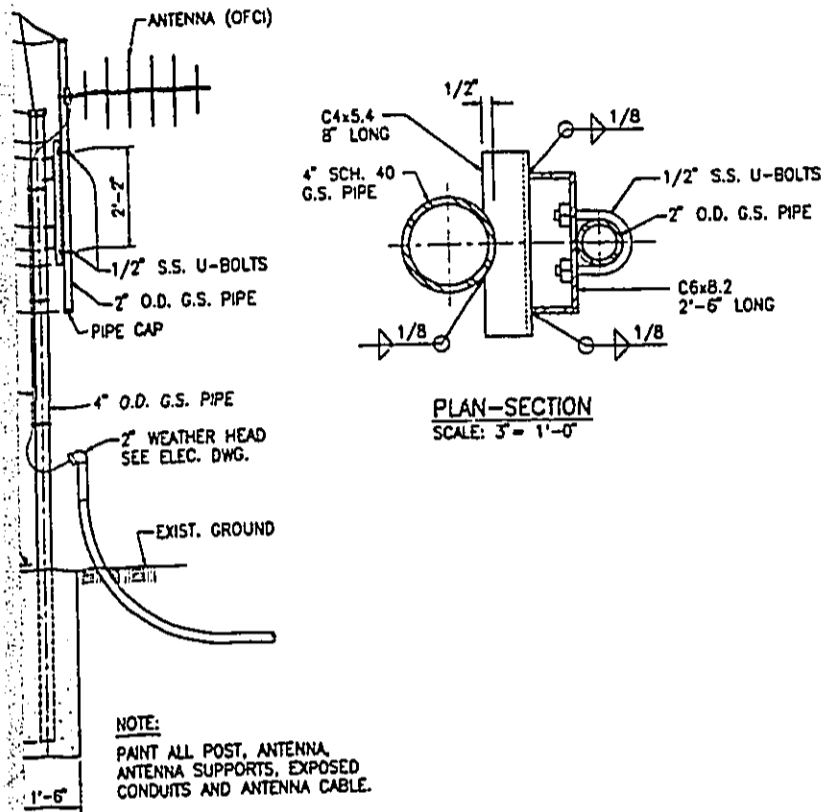


**SECTION A**  
SCALE: 1/2" = 1'-0"



- NOTES:  
1. FOR NUMBER AND SIZE OF CONDUIT, SEE ELECTRICAL DWG.  
2. VERIFY CONDUIT LOCATION WITH EQUIPMENT MANUFACTURER'S SHOP DRAWINGS.

**AMPLIFIER CABINET PAD DETAIL** 2/3/4  
SCALE: 3/4" = 1'-0"



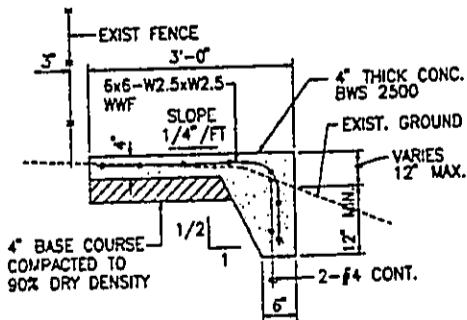
SECTION  
1/2" = 1'-0"

SUPPORT DETAIL 1  
3 4

CONE SEALANT  
AROUND CABINET  
EXIST. GROUND

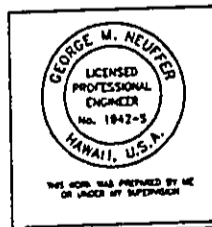
#4 CONT.  
BRIER  
ETHELENE  
ED  
IE

TRICAL DWG.  
UFACTURER'S



TYPICAL CONC. WALK SECTION 3  
3 4  
SCALE: 3/4" = 1'-0"

TAIL 2  
3 4



DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE
STW		RO		GMN	
APPROVED					
SUBMITTED BY					
DATE					
FIRM NUMBER					
SITE					

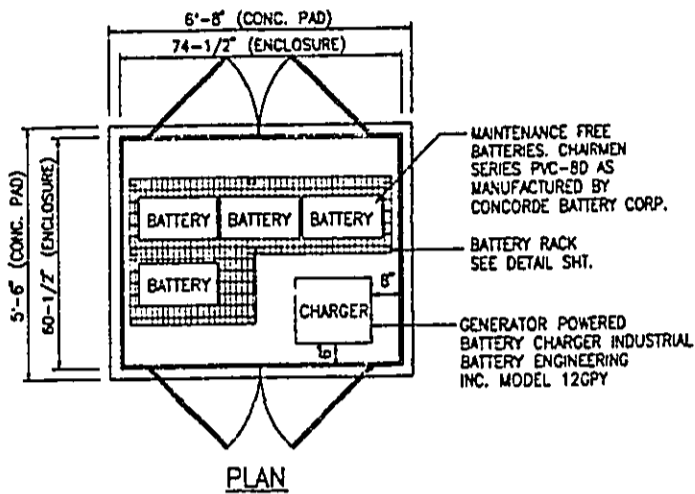
**ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.**  
ENGINEERS, SURVEYORS  
HONOLULU, HAWAII

**Honolulu Cellular**

HCTC PALI HIGHWAY BI-DIRECTIONAL  
AMPLIFIER STATION  
NUUANU, HONOLULU, OAHU, HAWAII

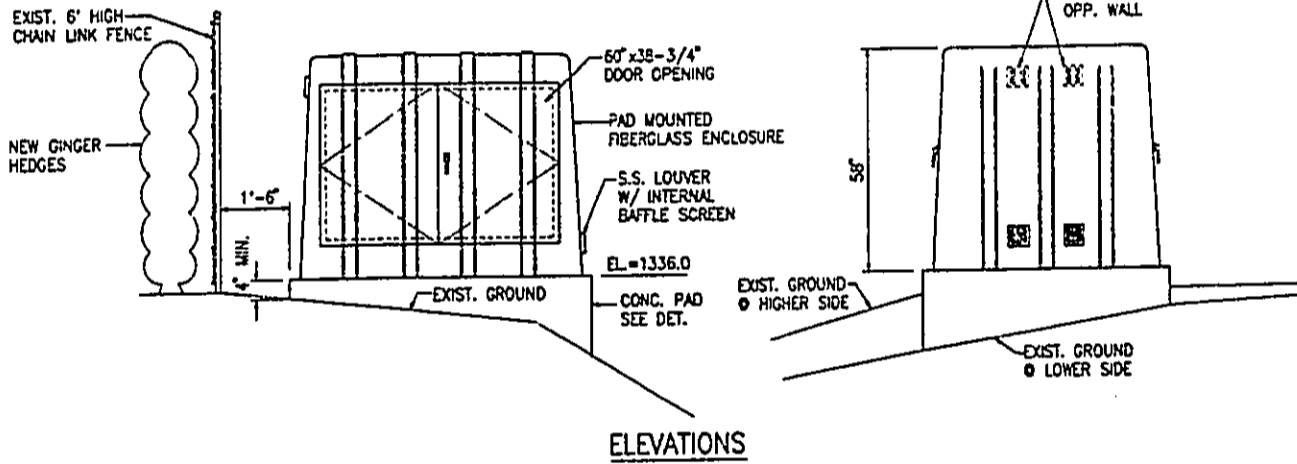
MISCELLANEOUS DETAILS

FILE	PROJECT	FOLDER	NO.
------	---------	--------	-----

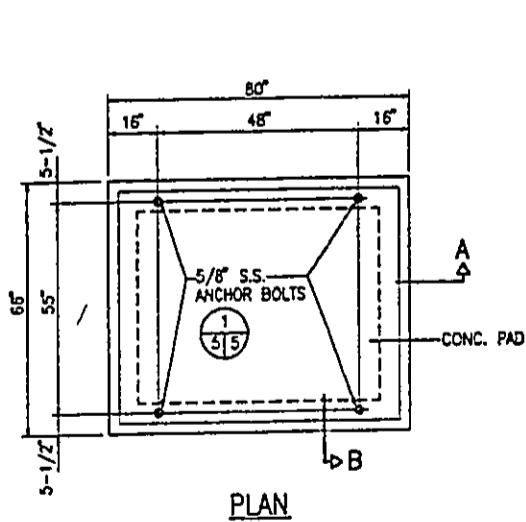


**NOTES:**

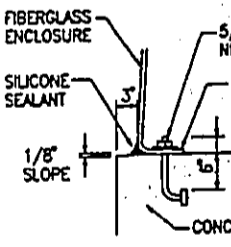
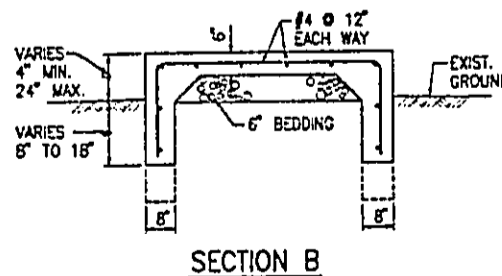
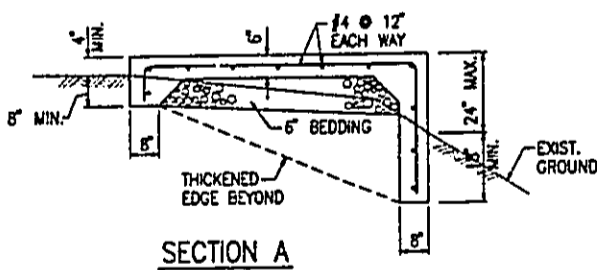
- PAD MOUNTED FIBERGLASS ENCLOSURE SHALL BE MODEL PE4-74-1-L2 AS MANUFACTURED BY POWER DESIGN INC. COLOR: TAN
  - A. ENCLOSURE MATERIAL:
    - FIBERGLASS LAMINATE 3/16" NOMINAL THICKNESS
    - EXTERIOR UV STABILIZED GELCOAT - 14 MIL NOMINAL THICKNESS
    - FIRE RETARDANT - DOES NOT SUPPORT COMBUSTION
    - STAINLESS STEEL HARDWARE
  - ENCLOSURE STANDARDS:
    - CONFORMS TO ANSI C57.12.18, PADMOUNT EQUIPMENT ENCLOSURE INTEGRITY STANDARD
    - CERTIFIED TEST DATA OF ASTM STRUCTURAL STANDARDS AVAILABLE UPON REQUEST.
- CONTRACTOR SHALL REPAIR ANY DAMAGES TO FIBERGLASS ENCLOSURE PER MANUFACTURER'S RECOMMENDED PROCEDURES.

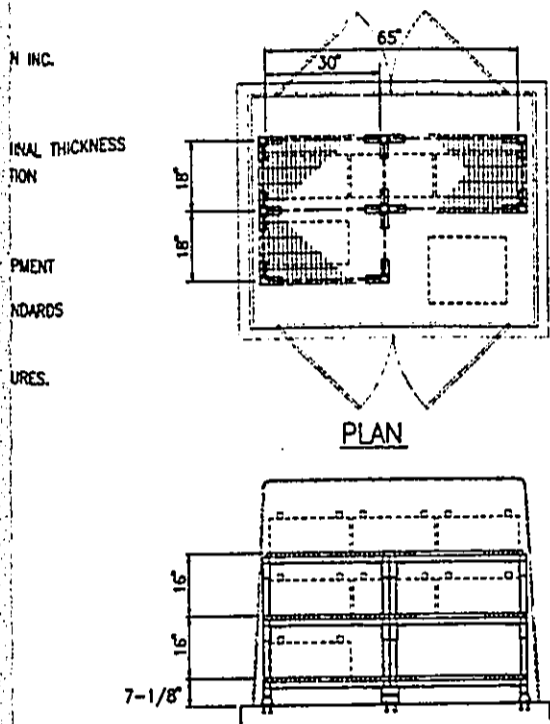


**BATTERY ENCLOSURE**  
SCALE: 1/2" = 1'-0"



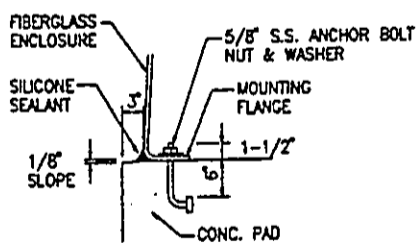
**BATTERY ENCLOSURE CONC. PAD**  
SCALE: 1/2" = 1'-0"





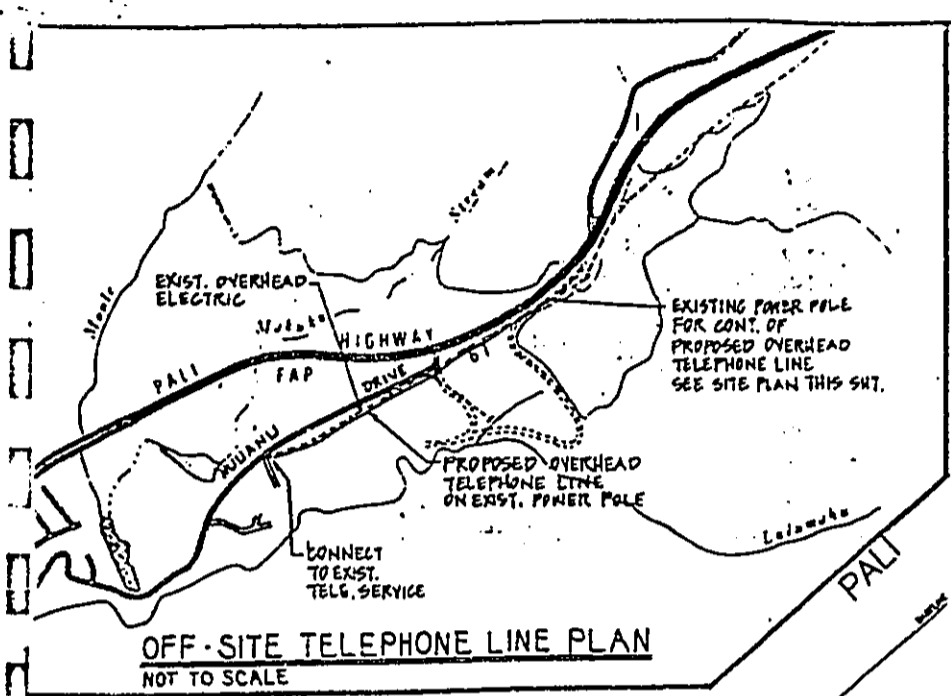
SECTION

**BATTERY RACK DETAIL**  
SCALE: 1/2" = 1'-0"

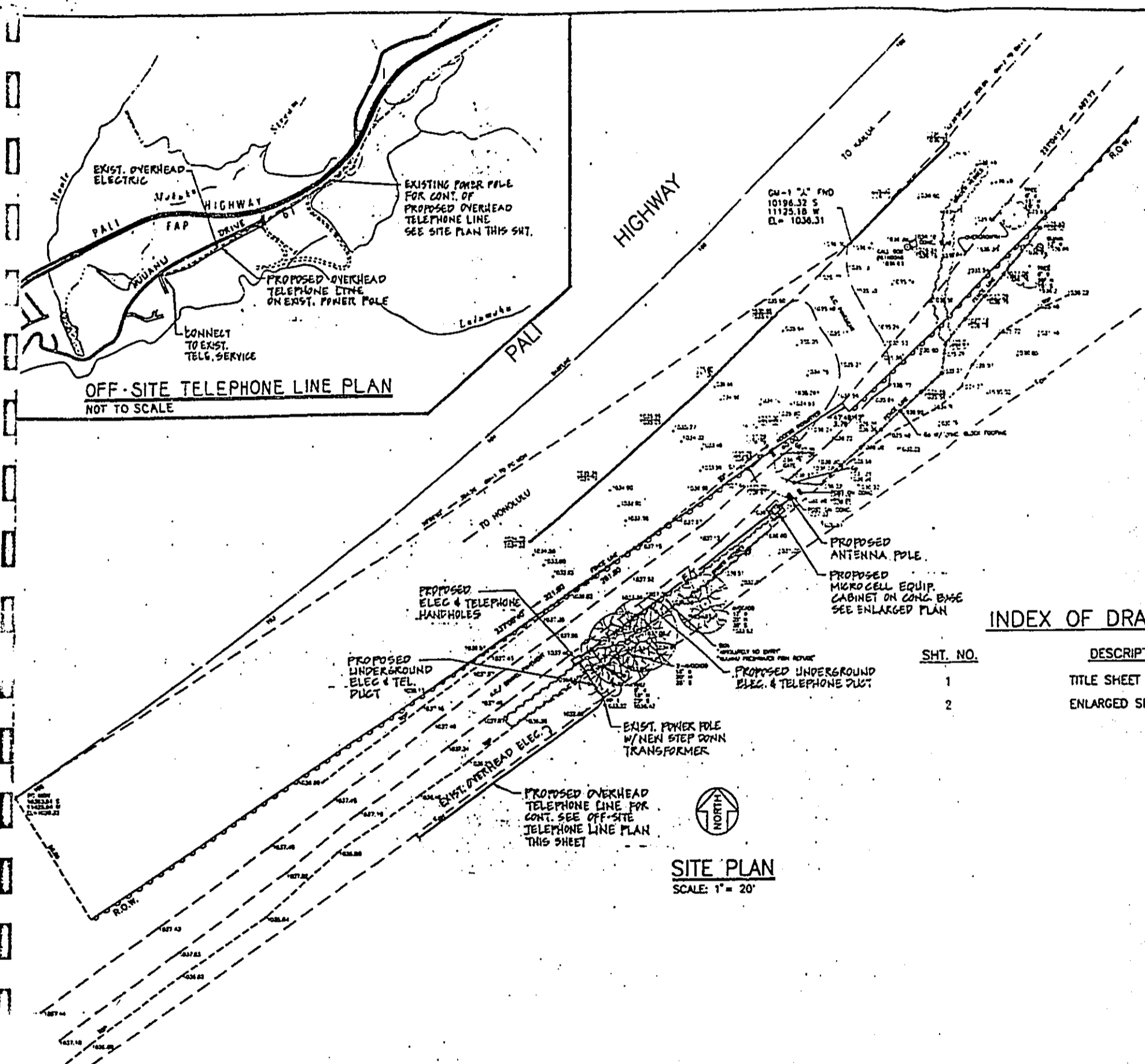


**TYPICAL ENCLOSURE HOLD DOWN** 1  
5/5  
NOT TO SCALE

 <small>THIS SEAL WAS PREPARED BY ME OR UNDER MY SUPERVISION</small>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>REVISION</td> <td>DATE</td> <td>BY</td> <td>DATE</td> <td>APPROVED</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISION	DATE	BY	DATE	APPROVED													
	REVISION	DATE	BY	DATE	APPROVED														
<p><b>ATA AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC.</b> ENGINEERS, SURVEYORS HONOLULU, HAWAII</p> <p><i>Honolulu Cellular</i></p> <p>HCTC PALI HIGHWAY BI-DIRECTIONAL AMPLIFIER STATION NUUANU, HONOLULU, OAHU, HAWAII</p> <p><b>MISCELLANEOUS DETAILS</b></p>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DESIGNED BY</td> <td>STW</td> <td>DRAWN BY</td> <td>RO</td> <td>CHECKED BY</td> <td>GMM</td> </tr> <tr> <td>APPROVED</td> <td colspan="5">SUBMITTED BY</td> </tr> <tr> <td> </td> <td>DATE</td> <td> </td> <td> </td> <td> </td> <td>DATE</td> </tr> </table>		DESIGNED BY	STW	DRAWN BY	RO	CHECKED BY	GMM	APPROVED	SUBMITTED BY						DATE				DATE
DESIGNED BY	STW	DRAWN BY	RO	CHECKED BY	GMM														
APPROVED	SUBMITTED BY																		
	DATE				DATE														



**OFF-SITE TELEPHONE LINE PLAN**  
NOT TO SCALE

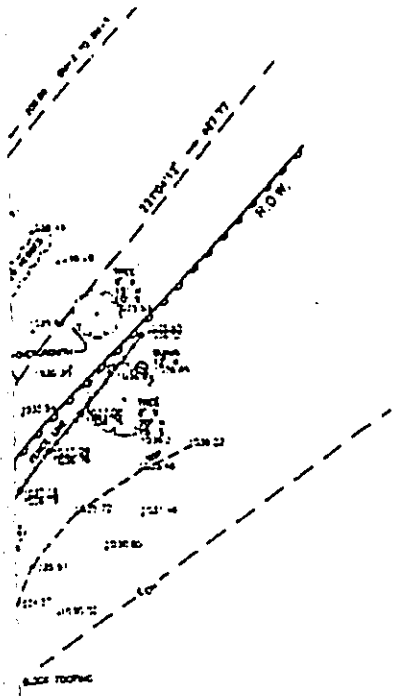


**SITE PLAN**  
SCALE: 1" = 20'

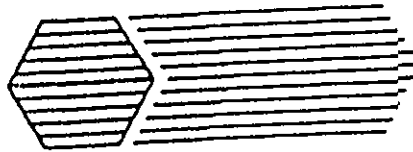
**INDEX OF DRAWINGS**

SHT. NO.	DESCRIPTION
1	TITLE SHEET
2	ENLARGED SITE PLAN





Honolulu  
Cellular



PROPOSED HCTC PALI HIGHWAY  
MICROCELL

NUUANU, HONOLULU, OAHU, HAWAII

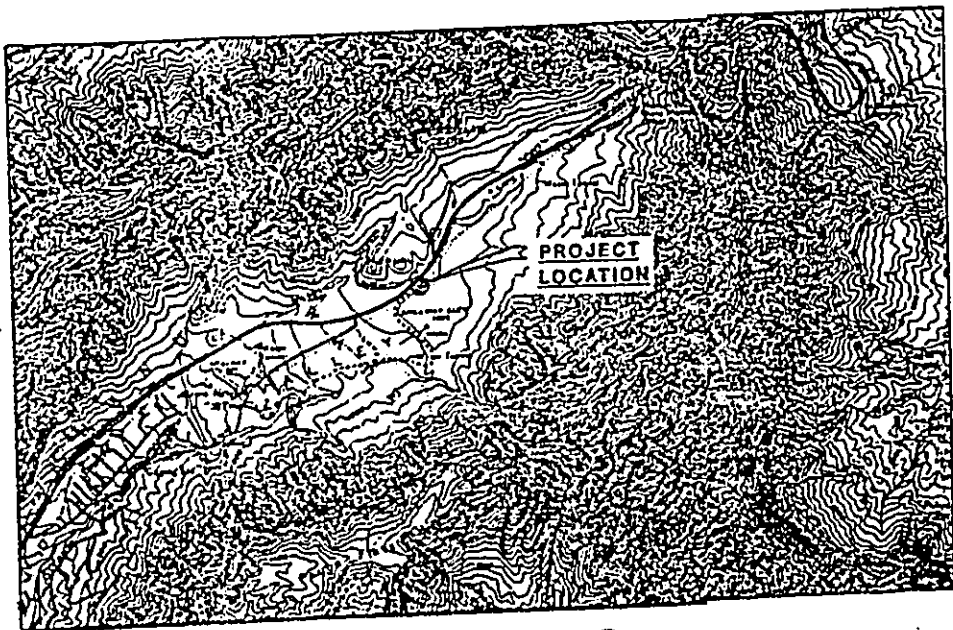
TAX MAP KEY: 2-2-54:POR. 1

PREPARED BY

**ATA** AUSTIN, TSUTSUMI & ASSOCIATES, INC.  
ENGINEERS • SURVEYORS HONOLULU • WAILUKU • HILO

INDEX OF DRAWINGS

NO.	DESCRIPTION
	TITLE SHEET AND SITE PLAN
	ENLARGED SITE PLAN



LOCATION MAP

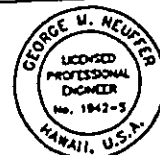
SCALE: 1" = 2000'

DETAIL (LETTER)  
SECTION (NUMBER)

A SHEET NO. ON WHICH  
B/C DETAIL OR SECTION  
IS DRAWN

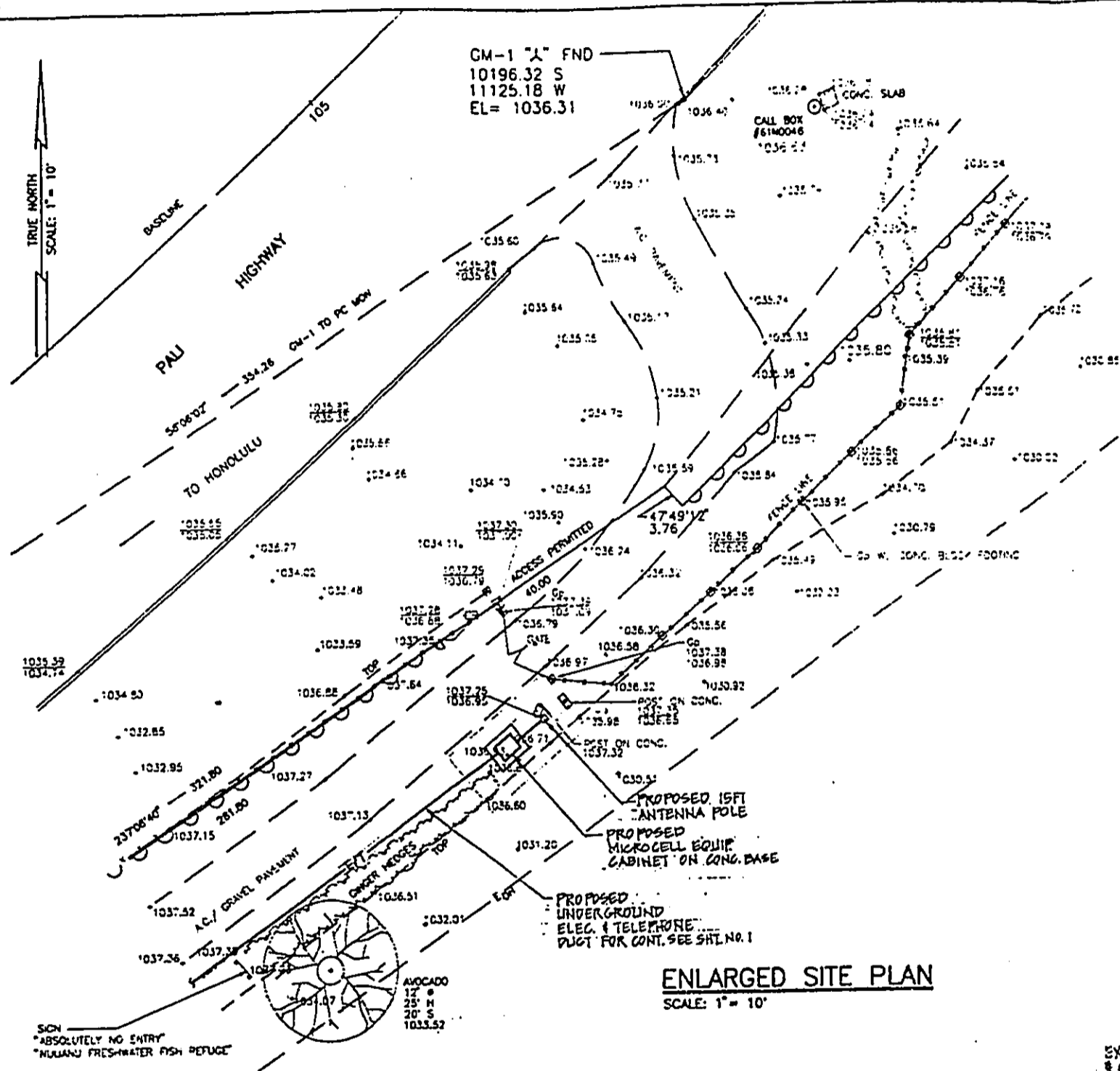
SHEET NO. ON WHICH  
DETAIL OR SECTION  
IS REFERENCED ON

**SHEET REFERENCING**



SEARCHED	INDEXED	SERIALIZED	FILED
<b>ATA AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC.</b> ENGINEERS, SURVEYORS HONOLULU, HAWAII			
<i>Honolulu Cellular</i> PROPOSED HCTC PALI HIGHWAY MICROCELL NUUANU, HONOLULU, OAHU, HAWAII			
<b>TITLE SHEET AND SITE PLAN</b>			
DESIGNED BY	STW	DRAWN BY	RO
CHECKED BY		DATE	CMN
APPROVED	SUBMITTED BY		
DATE	FILE NUMBER	DATE	

TRUE NORTH  
SCALE: 1" = 10'



GM-1 "A" FND  
10196.32 S  
11125.18 W  
EL= 1036.31

**ENLARGED SITE PLAN**  
SCALE: 1" = 10'

SON  
"ABSOLUTELY NO ENTRY"  
"HAWAII FRESHWATER FISH REFUGE"

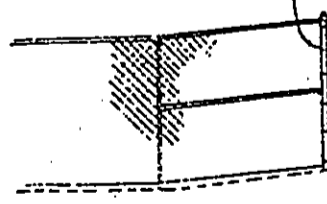
AVOCADO  
17' 0" H  
25' H  
20' S  
1033.52

PROPOSED 15FT  
ANTENNA POLE  
PROPOSED MICROCELL EQUIP.  
CABINET ON CONC. BASE  
PROPOSED UNDERGROUND  
ELEC. & TELEPHONE  
DUCT FOR CONT. SEE SHET. NO. 1

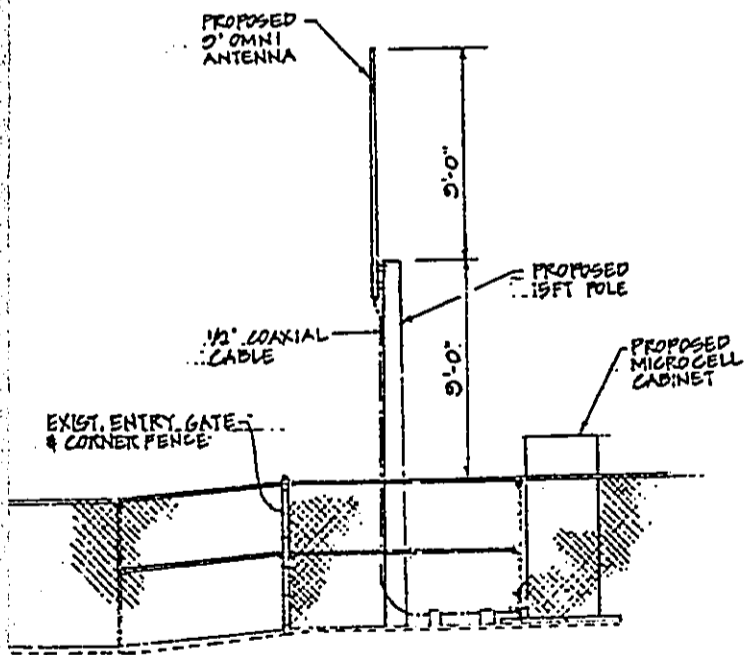
PROPOSED  
OMNI  
ANTENNA

1/2" COAXIAL  
CABLE

EXIST. ENTRY GATES  
& CORNER FENCE

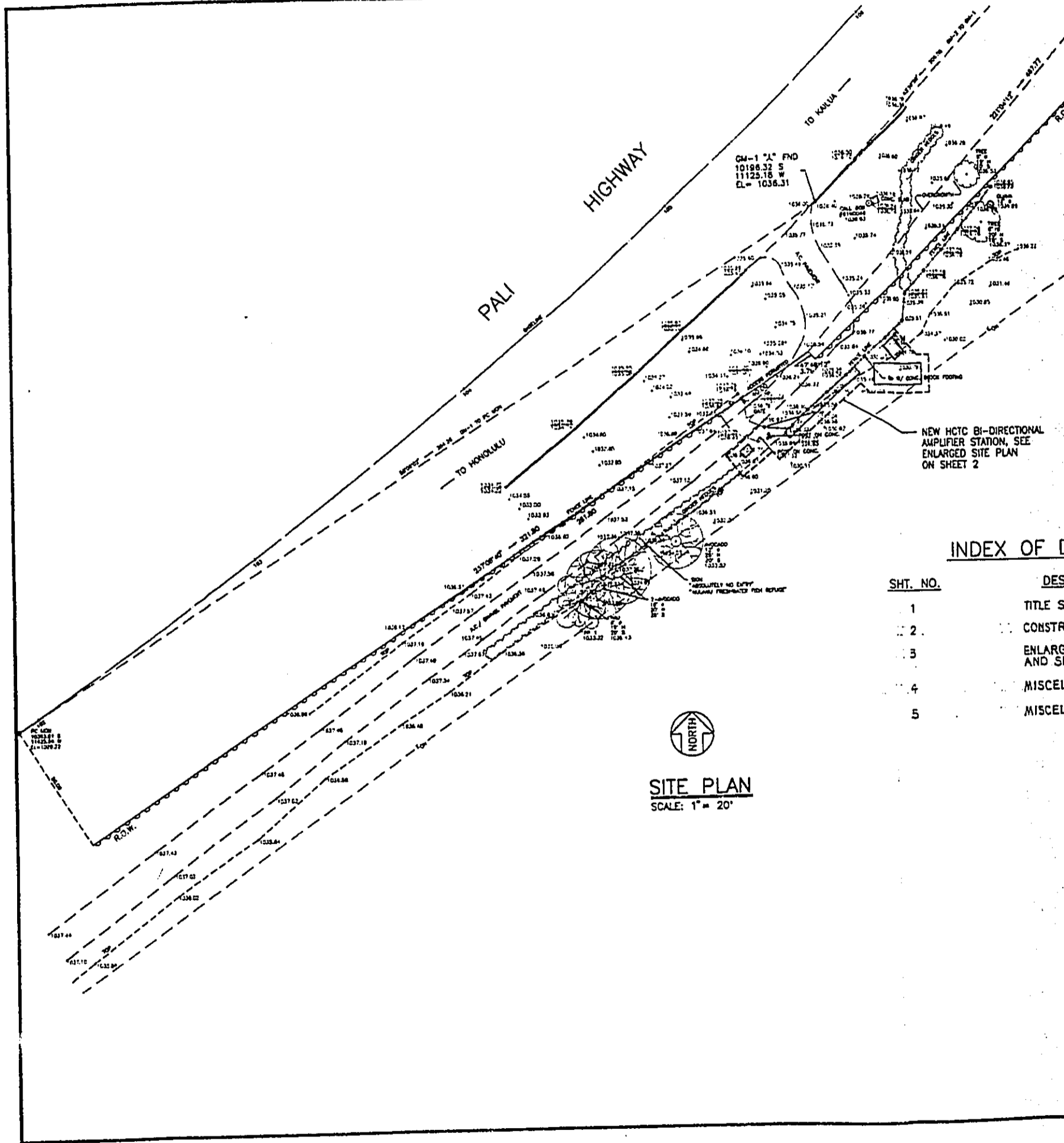


ELEVATION AL  
SCALE: 1/4" = 1' 0"



ELEVATION ALONG CHAIN LINK FENCE  
SCALE: 1/4" = 1'-0"

<p>THE WORK WAS PROVIDED BY ME OR UNDER MY SUPERVISION</p>	<table border="1"> <tr> <td>REVISION</td> <td>DATE</td> <td>BY</td> <td>CHK'D BY</td> <td>APPROVED</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISION	DATE	BY	CHK'D BY	APPROVED					
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<p><b>Honolulu Cellular</b></p> <p>PROPOSED HCTC PALI HIGHWAY MICROCELL NUUANU, HONOLULU, OAHU, HAWAII</p>											
<p>ENLARGED SITE PLAN SECTIONS AND SITE ELEVATION</p>											
<p>DESIGNED BY: STW    DRAWN BY: RO    CHECKED BY: GJM</p> <p>APPROVED: _____ SUBMITTED BY: _____</p>											
<p>DATE: _____ PLOT NUMBER: _____</p>											

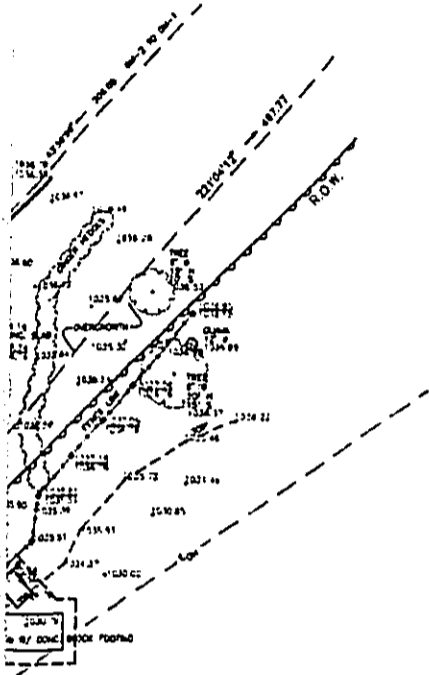


NEW HCTC BI-DIRECTIONAL  
AMPLIFIER STATION, SEE  
ENLARGED SITE PLAN  
ON SHEET 2

INDEX OF D

SHT. NO.	DES
1	TITLE S
2	CONSTR
3	ENLARG AND S
4	MISCEL
5	MISCEL

  
SITE PLAN  
SCALE: 1" = 20'



NEW HCTC BI-DIRECTIONAL  
AMPLIFIER STATION, SEE  
ENLARGED SITE PLAN  
ON SHEET 2

# Honolulu Cellular

## HCTC PALI HIGHWAY BI-DIRECTIONAL AMPLIFIER STATION

NUUANU, HONOLULU, OAHU, HAWAII

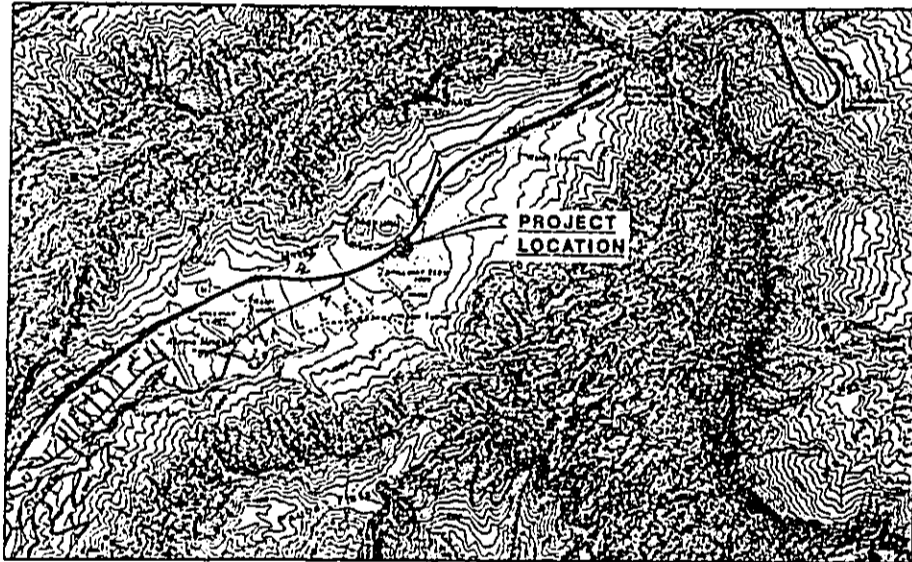
TAX MAP KEY: 2-2-54:POR. 1

PREPARED BY

**ATA** AUSTIN, TSUTSUMI & ASSOCIATES, INC.  
ENGINEERS • SURVEYORS HONOLULU • WAILUKU • HILO

### INDEX OF DRAWINGS

SHT. NO.	DESCRIPTION
1	TITLE SHEET AND SITE PLAN
2	CONSTRUCTION NOTES
3	ENLARGED SITE PLAN, ELEVATION AND SECTIONS
4	MISCELLANEOUS DETAILS
5	MISCELLANEOUS DETAILS



LOCATION MAP  
SCALE: 1" = 2000'

DETAIL (LETTER)  
SECTION (NUMBER)

A SHEET NO. ON WHICH  
DETAIL OR SECTION  
IS DRAWN

B/C SHEET NO. ON WHICH  
DETAIL OR SECTION  
IS REFERENCED ON

### SHEET REFERENCING

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DESIGNED BY	STW	DRAWN BY	RO	CHECKED BY	GMN														
APPROVED		SUBMITTED BY																	

*Handwritten initials/signature*

# Division of Forestry & Wildlife

1151 Punchbowl Street, Rm. 325 • Honolulu, HI 96813 • (808) 587-0166 • Fax (808) 587-0160

April 30, 1996

c:\wfd\adm\9596\OA-2809.wfc

## MEMORANDUM

TO: Dean Uchida, Administrator  
Division of Land Management

FROM: Michael G. Buck, Administrator

SUBJECT: Cellular Telephone Relay Amplification Facility, File No. OA-2809

*Handwritten signature of Michael G. Buck*

RECEIVED  
DIVISION OF  
LAND MANAGEMENT  
MAY 9 2 12 PM '96

We have reviewed File No. OA-2809 and have the following comments:

- (1) On page 4, the description of the project states that two small antennas will be constructed along with an amplifier cabinet. However, on Exhibit E, page 2 of 2, there is a 9-foot omni antenna that is also being proposed along with a proposed microcell cabinet and a proposed underground electric and telephone duct. It is one and the same project? If so, then it needs to be explained in the document.
- (2) As this project will provide better cellular coverage for the citizens of Oahu, we have no objections to the proposed request.

cc: Oahu Branch

OSHIMA CHUN FONG & CHUNG  
ATTORNEYS AT LAW

SUITE 400  
DAVIES PACIFIC CENTER  
641 BISHOP STREET  
HONOLULU, HAWAII 96813

July 2, 1996

TELEPHONE  
(808) 528-4200  
TELECOPIER  
(808) 531-8466

Mr. Michael G. Buck, Administrator  
Division of Forestry and Wildlife  
Department of Land and Natural Resources  
1151 Punchbowl Street, Room 325  
Honolulu, Hawaii 96813

Re: Honolulu Cellular Telephone Company: Draft Environmental Assessment  
for Communications Facility at Nuuanu Reservoir #4

Dear Mr. Buck:

We have been provided with your memorandum addressed to Mr. Dean Uchida dated May 9, 1996 commenting on the above-referenced project.

The proposed project initially will include two small antennas and an amplifier cabinet (approximately 35" x 30" x 68" high) mounted on a concrete pad of approximately nine square feet. In the event telephone usage increases and technology changes, it may be desirable to replace this bi-directional amplifier equipment with microcell equipment. The Exhibit E you referred to (Exhibit B in the Draft EA) is provided to illustrate the proposed microcell equipment. If and when installation of microcell equipment becomes desirable, further approval from the Department of Land and Natural Resources will be sought.

The Final Environmental Assessment will be amended to clarify this matter.

Your letter, together with this response, will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the environmental review process.

Very truly yours,



Michael H. Lau

MHL:kclh

MHL/HCTC/CDUAL/TR-MGB.DOC

EXHIBIT D  
Page 2 of 12

LAND MANAGEMENT DIV.

ID:808-587-0455

JUN 04 '96

8:31 NO.UUZ P.OJ

BENJAMIN J. CAYETANO  
GOVERNOR

RECEIVED  
DIVISION OF  
LAND MANAGEMENT



JUN 3 1 56 PM '96

STATE OF HAWAII  
DEPARTMENT OF BUDGET AND FINANCE

P. O. BOX 150  
HONOLULU, HAWAII 96810-0150

EARL I. ANZAI  
DIRECTOR

NEAL MIYAHIRA  
DEPUTY DIRECTOR

EMPLOYEES RETIREMENT SYSTEM  
HAWAII PUBLIC EMPLOYEES HEALTH FUND  
HOUSING FINANCE AND DEVELOPMENT  
CORPORATION  
OFFICE OF THE PUBLIC DEFENDER  
PUBLIC UTILITIES COMMISSION  
RENTAL HOUSING TRUST FUND COMMISSION

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
INFORMATION AND COMMUNICATION  
SERVICES DIVISION

May 24, 1996

TO: The Honorable Michael D. Wilson, Director  
Department of Land and Natural Resources

FROM: Earl I. Anzai  
Director of Finance *EIA*

SUBJECT: Conservation District Use Application (CDUA) for  
Cellular Telecommunication Facility at Nuuanu

The following comments are provided on the Honolulu Cellular Telephone Company's CDUA as requested in your letter of May 6, 1996.

The proposed cellular telephone relay amplification facility and the possible replacement of this equipment in the future with a microcell poses no known threat to the operation of State-owned telecommunication systems.

If we assume this site is critical to the proper operation of Honolulu Cellular Telephone Company's services in the area, consideration should be given to the possibility that other cellular and Personal Communications Services (PCS) companies would experience similar coverage problems in the area and would also desire use of the site or another site close by. To preclude the proliferation of cellular and PCS sites in the area, we recommend the approval of the CDUA be based on a design that would accommodate multiple users.

Should you have any questions, please call Mr. Thomas Yamashiro at 586-1920.

NETADM533

EXHIBIT D  
Page 3 of 12

No. 1 Capitol District Building, 250 S. Hotel Street, Honolulu, Hawaii 96813



OSHIMA CHUN FONG & CHUNG  
ATTORNEYS AT LAW

SUITE 400  
DAVIES PACIFIC CENTER  
841 BISHOP STREET  
HONOLULU, HAWAII 96813

July 2, 1996

TELEPHONE  
(808) 528-4200  
TELECOPIER  
(808) 531-8466

Mr. Earl Anzai  
Director of Finance  
Department of Budget and Finance  
P. O. Box 150  
Honolulu, Hawaii 96810-0150

Re: Honolulu Cellular Telephone Company: Draft Environmental Assessment  
for Communications Facility at Nuuanu Reservoir #4

Dear Mr. Anzai:

We have been provided with your memorandum addressed to Mr. Michael Wilson dated May 24, 1996 commenting on the above-referenced project.

Honolulu Cellular has in the past at several other locations entered into agreements with other communications companies to co-locate their facilities. Because Honolulu Cellular is not aware of any specific requests for co-location at this site, Honolulu Cellular's CDUA and draft EA did not include any plans to co-locate other communications facilities at this site. However, recognizing the State's desire to not have a proliferation of antenna sites, HCTC does not oppose other communications companies co-locating at this site. Any future co-location proposals at this location will be subject to (a) the communications company obtaining a license from the Board of Water Supply and (b) obtaining the necessary permit(s) from the Board of Land and Natural Resources.

The Final Environmental Assessment will be amended to address this matter.

Your letter, together with this response, will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the environmental review process.

Very truly yours,



Michael H. Lau

MHL:kclh

MHL/HCTC/CDUALTR-EA.DOC

LAND MANAGEMENT DIV.  
BENJAMIN J. CAVETANO  
GOVERNOR OF HAWAII

ID:808-587-0455

JUN 04 '96

8:33 No.002 P.07  
MICHAEL D. WALTON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

RECEIVED  
DIVISION OF  
LAND MANAGEMENT  
JUN 3 1 53 PM '96



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

DEPUTY  
GILBERT COLOMA-ADARAN

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

May 28, 1996

MEMORANDUM

LOG NO: 17539  
DOC NO: 9605TD13

TO: Dean Y. Uchida, Administrator  
Land Division

FROM: *for lands*  
Don Hibbard, Administrator  
*for* Historic Preservation Division

SUBJECT: Conservation District Use Application for Cellular Telecommunication  
Facility at Nuuanu (File No. OA-2809)  
Honolulu, Kona, O'ahu  
TMK: 2-2-54:por. 1

The proposed project will install an amplifier system and photovoltaic power supply on 960 square feet of land near Nuuanu Reservoir No. 4, which is under the jurisdiction of the Honolulu Board of Water Supply.

A review of our records shows that there are no known historic sites at the proposed project location. The land here appears to have been graded, most likely during construction of the reservoir, and it is unlikely that unrecorded historic sites will be found. Therefore, we believe the proposed project will have "no effect" on historic sites.

TD:jk

OSHIMA CHUN FONG & CHUNG  
ATTORNEYS AT LAW

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July 2, 1996

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

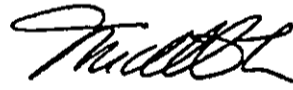
Re: Honolulu Cellular Telephone Company: Draft Environmental Assessment  
for Communications Facility at Nuuanu Reservoir #4

Dear Mr. Hibbard:

We have been provided with your memorandum addressed to Mr. Dean Uchida dated May 28, 1996 regarding the above-referenced project.

Your letter, together with this response, will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the environmental review process.

Very truly yours,



Michael H. Lau

MHL:kclh

MHL/HCTCCDUALTR-DH.DOC

RECEIVED  
 DIVISION OF  
 LAND MANAGEMENT  
 PLANNING DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**  
 150 SOUTH KING STREET, 8TH FLOOR • HONOLULU, HAWAII 96813-3017  
 PHONE: (808) 523-4711 • FAX: (808) 523-4930

JUN 3 1 56 PM '96

JEREMY HARRIS  
MAYOR



CHERYL D. SOON  
CHIEF PLANNING OFFICER  
CAROLL TAKAHASHI  
DEPUTY CHIEF PLANNING OFFICER

TH 5/96-1048

May 28, 1996

Honorable Michael D. Wilson, Chairperson  
Board of Land and Natural Resources  
Department of Land and Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Conservation District Use Application for a  
Cellular Telecommunication Facility at Nuuanu, Oahu, Hawaii

In response to your letter dated April 29, 1996, we have reviewed the subject application and offer the following comments.

We have no objections to the proposed project. The telecommunication facility is proposed for an area designated for preservation on the Primary Urban Center Development Plan (DP) Land Use Map. Additionally, no planned public facilities or utilities are shown on the Primary Urban Center DP Public Facilities Map.

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Tim Hata of our staff at 527-6070.

Sincerely,

*Carol Takahashi*

*for* CHERYL D. SOON  
Chief Planning Officer

CDS:ft

OSHIMA CHUN FONG & CHUNG  
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Ms. Cheryl Soon  
Chief Planning Officer  
Planning Department  
City and County of Honolulu  
650 South King Street, 8th Floor  
Honolulu, Hawaii 96813


Re: Honolulu Cellular Telephone Company: Draft Environmental Assessment  
for Communications Facility at Nuuanu Reservoir #4

Dear Ms. Soon:

We have been provided with your letter addressed to Mr. Michael Wilson dated May 28, 1996 regarding the above-referenced draft environmental assessment.

Your letter, together with this response, will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the environmental review process.

Very truly yours,



Michael H. Lau

MHL:kclh

MHL/HCTC/CDUALTR-CS.DOC

DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET  
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JEREMY HARRIS  
 MAYOR

PATRICK T. ONISHI  
 DIRECTOR

LORETTA K.C. CHIEC  
 DEPUTY DIRECTOR

96-02655 (ASK)

May 29, 1996

The Honorable Michael D. Wilson, Director  
 Department of Land and  
 Natural Resources  
 State of Hawaii  
 Kalanimoku Building  
 1151 Punchbowl Street, Room 130  
 Honolulu, Hawaii 96813

RECEIVED  
 DIVISION OF  
 LAND MANAGEMENT  
 MAY 31 8 32 AM '96

Dear Mr. Wilson:

**Draft Environmental Assessment and  
 Conservation District Use Application for  
 Cellular Telecommunication Facility at Nuuanu, Oahu**  
Tax Map Key: 2-2-05: 01

We have reviewed the above-referenced application and offer the following comments:

1. Generally, we are concerned with the proliferation and cumulative visual impacts of telecommunication facilities on Oahu. This issue is of particular concern in the Conservation District as many of Oahu's scenic vistas are located within this district. Our recent experience suggests that these facilities will continue to grow in both number and size and will cover a wider geographic area.

Visual impacts from public viewing areas should be mitigated.

2. The application indicates that the proposed cell site is only part of a telecommunications network that provides cellular telephone service to subscribers.

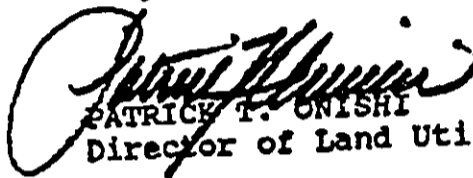
Section 11-200-12, State Department of Health Administrative Rule requires that the overall and cumulative effects of proposed action be evaluated in addressing the project impacts. We suggest that the final environmental assessment provide a description of the proposed project in the context of the entire system, including future planned facilities.

EXHIBIT D  
 Page 9 of 12

The Honorable Michael D. Wilson, Director  
Page 2  
May 29, 1996

Should you have any questions, please contact Ardis Shaw-Kim of our staff at 527-5349.

Very truly yours,



PATRICK T. ONISHI  
Director of Land Utilization

PTO:am

A:cdus.asf  
G:cdus.asf

OSHIMA CHUN FONG & CHUNG  
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July 2, 1996

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Mr. Patrick Onishi, Director  
Department of Land Utilization  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Re: Honolulu Cellular Telephone Company: Draft Environmental Assessment  
for Communications Facility at Nuuanu Reservoir #4

Dear Mr. Onishi:

We have been provided with your letter addressed to Mr. Michael Wilson dated May 29, 1996 commenting on the above-referenced draft environmental assessment.

1. *Visual Impacts.* The project facility is small in scale and the antennae will be only approximately 10 feet high. As noted on page 9 of the Draft Environmental Assessment, the existing surrounding vegetation and proposed landscaping will make this facility barely visible from the Pali Highway.

2. *Systemwide Facilities.* HCTC is the non-wireline cellular telephone provided licensed by the FCC to provide commercial cellular service for the Honolulu Metropolitan Service Area, which encompasses the entire island of Oahu and the immediate surrounding waters. HCTC's cellular network is presently comprised of a Mobile Telephone Switching Office ("MTSO"), a microwave system utilized for interconnecting some of the cell sites to the MTSO, 30 full cell sites, 5 microcells, and 3 cell enhancers.

Under HCTC's present system configuration, there is substantially uninterrupted cellular coverage throughout the island of Oahu and surrounding waters, with the exception of a few "pocket" areas where it is difficult to provide high quality coverage due to topography of the area. In addition to the proposed project, HCTC's master plan calls for additional cell sites, cell enhancers or microcells to improve coverage in areas where "pockets" of weak signal strength exist and as customers usage increases.

With the addition of the site adjacent to the Nuuanu Reservoir No. 4, HCTC will have a total of five (5) sites located within the State Conservation District. With the exception of one or two sites required to provide continuous cellular coverage along the H-3 Freeway, which may or may not require sites to be deployed within the State Conservation District, HCTC does



Mr. Patrick Onishi  
July 2, 1996  
Page 2

not anticipate any future telecommunications sites to be built within the State conservation districts.

HCTC does have a Facility Master Plan which locates proposed future cell sites and other facilities. That information, however, is proprietary and confidential, and, for competitive reasons, HCTC will not disclose such information unless necessary and required.

Additionally, of course, HCTC is unaware of future plans for facilities for other communications companies. It should be noted, however, that HCTC has in the past at several other locations entered into agreements with other communications companies to co-locate their facilities. Because Applicant is not aware of any specific requests for co-location at this site, HCTC did not include any plans to co-locate other communications facilities at this Nuuanu Reservoir site in its CDUA or Draft Environmental Assessment. However, any future co-location proposals at this location will be subject to (a) the communications company obtaining a license from the Board of Water Supply and (b) obtaining the necessary permit(s) from the Board of Land and Natural Resources.

The Final Environmental Assessment will be amended to address this matter.

Your letter, together with this response, will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the environmental review process.

Very truly yours,



Michael H. Lau

MHL:kclh

MHL/HCTC/CDUA/LTR-PO.DOC