

JOHN WAIHEE
GOVERNOR



RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
DEPUTY COMPTROLLER

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

LETTER NO. PM-1442.1

NOV 27 1991

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Mr. Brian J. J. Choy
Director
Office of Environmental
Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Dear Mr. Choy:

Subject: Environmental Assessment for
University of Hawaii at Manoa
Center for Hawaiian Studies
D.A.G.S. Job No. 12-31-3171

Based on comments received during the agency and public consultation phase for the subject Environmental Assessment (EA), the Department of Accounting and General Services, pursuant to Chapter 343, HRS, and Title II, Chapter 200 (Administrative Rules, Department of Health), determines that the proposed action will have no significant environmental impact.

We respectfully request that this negative declaration be published in the OEQC Bulletin at your earliest convenience. Attached are four (4) copies of the Final Environmental Assessment and the OEQC publication form. Agency responses have been included in the Final Environmental Assessment.

If there are any questions on this negative declaration, please contact Mr. Dan Chun of Kauahikaua and Chun at 526-2283.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Teuane Tominaga".

TEUANE TOMINAGA
State Public Works Engineer

HI/si
Attach.

1991-12-08-0A-FAA-University of Hawaii Hawaiian Studies
Center

FILE COPY

**ENVIRONMENTAL ASSESSMENT
FOR
PROPOSED CENTER FOR HAWAIIAN STUDIES**

NOVEMBER 1991

**ENVIRONMENTAL ASSESSMENT
FOR
PROPOSED CENTER FOR HAWAIIAN STUDIES
UNIVERSITY OF HAWAII AT MĀNOA
MĀNOA, HONOLULU, HAWAII**

**PREPARED FOR
UNIVERSITY OF HAWAII**

**PREPARED BY
BELT COLLINS & ASSOCIATES**

NOVEMBER 1991

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CHAPTER 1

SUMMARY

The Department of Accounting and General Services is proposing the construction of the Center for Hawaiian Studies for the University of Hawaii at Manoa. The Center for Hawaiian Studies plans to expand its course and degree offerings and to create a multi-disciplinary research center with collaborative community projects. The construction of the new Center for Hawaiian Studies is proposed in an effort to obtain these goals.

The most desirable location for the proposed new Center for Hawaiian Studies was determined to be a site along Dole Street *makai* of the University's Wa'ahila Faculty Housing Complex. This location of the Center is consistent with the University's Long-Range Development Plan, and with the City & County of Honolulu's General Plan, Development Plan and Land Use Ordinance. The Center will consist of one- and two-story buildings with a total of 14,500 square feet of assignable floor area (26,600 gross square feet). There will be 16 faculty offices, 2 seminar rooms, 3 classrooms, an auditorium, space for student counselors, a student lounge, meeting room, and an outdoor ceremonial space. The Center will be located out of the flood zone and will have negligible impact on drainage. There will be no major impact on sonic quality from the Center with the exception of the construction period. No impact on flora or fauna is anticipated because the site is currently used as a parking lot. The proposed center will require the loss of about one-third of the parking spaces, necessitating the use of alternate parking within the University system or parking on the street. It has been concluded that this proposed project will not have a significant adverse effect on the environment and will not, therefore, require the preparation of an environmental impact statement.

CHAPTER 2

PROJECT DESCRIPTION

2.1 BACKGROUND

2.1.1 EXISTING CENTER FOR HAWAIIAN STUDIES CURRICULUM AND FACILITIES

The existing academic program of the Center for Hawaiian Studies at the University of Hawai'i at Mānoa (UHM) focuses on Hawaiian history, culture and modern issues. During the 1989-1990 academic year, the Center had a staff of six, including two faculty who taught six different courses and three graduate teaching assistants who taught six sections of the introductory course. Approximately 53 students were enrolled in its baccalaureate degree program during the 1989-1990 school year, and it is estimated that another 400 students from other majors will attend classes offered by the Hawaiian Studies Program in the future. The facilities used by the Center are dispersed across the campus. For example, its offices are located in Moore Hall, and its courses are taught in general assignment classrooms on campus. Refer to Figure 1 for current and future locations of the Center.

2.1.2 NEW/EXPANDED CENTER FOR HAWAIIAN STUDIES AND ACTIVITIES

The Center for Hawaiian Studies plans to expand its offerings in the near future to include a master's degree program in Hawaiian Language, Literature and Culture, and it is hoped that a doctoral program in comparative Polynesian studies may eventually be established. It has begun a coordinated program designed to help the University recruit and retain both academically competitive and under-prepared students of Hawaiian ancestry. The Center is also working to see that a course in Hawaiian culture is added to the University's core curriculum. These changes are expected to dramatically increase the number of courses taught by the Center's staff, from less than a dozen today to nearly 60 in 1998. The number of students enrolled in its courses is expected to increase from the present 253 to approximately 1,500 in 1998.

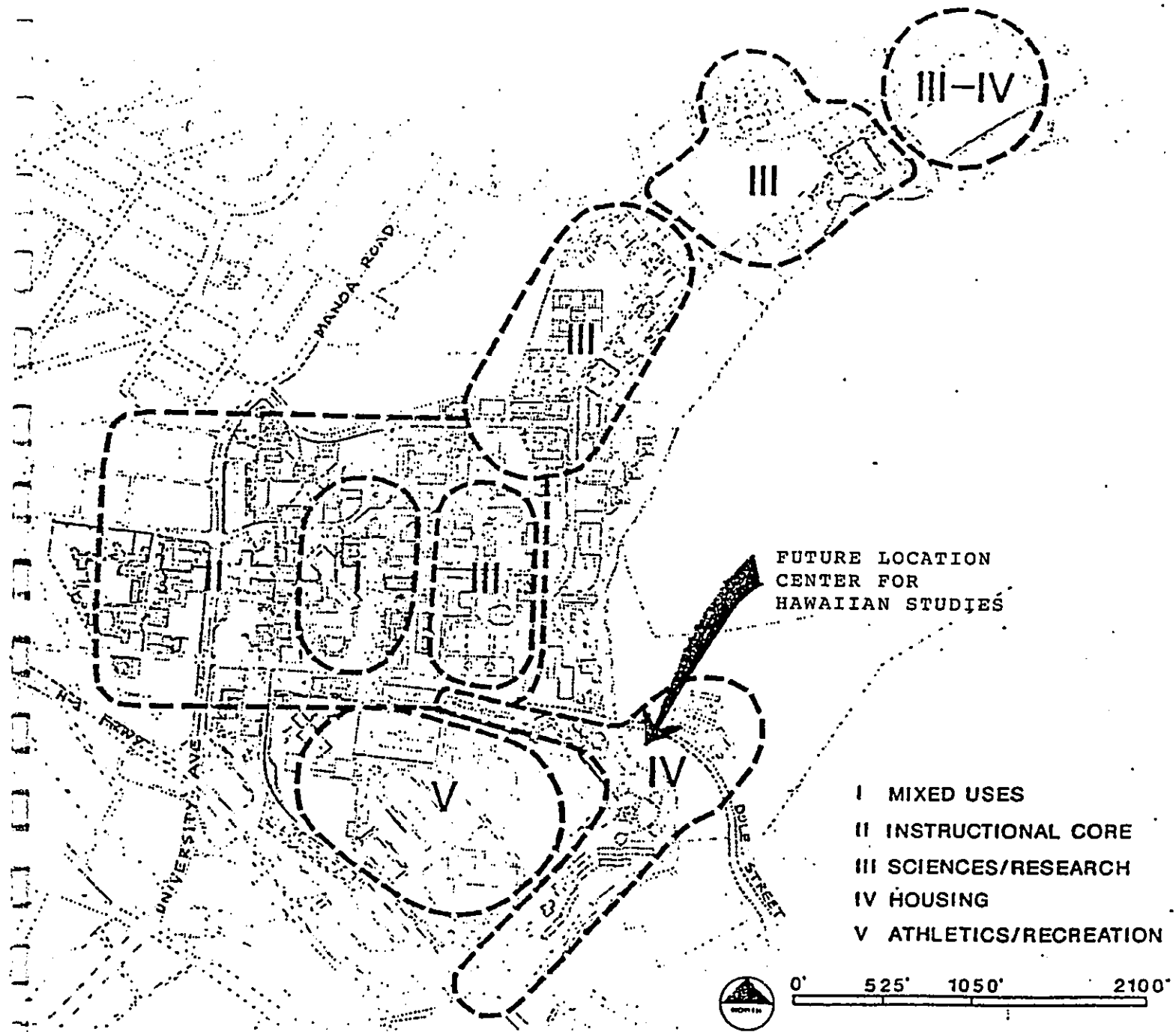
In addition to expanding its course and degree offerings, the Center for Hawaiian Studies proposes to create a multi-disciplinary research center with collaborative community projects. This center will serve as a repository for basic Hawaiian Studies materials and will contain facilities for the production of additional instructional and display materials.

2.2 NEED FOR THE PROPOSED ACTION

In order to implement its expanded program, the Center for Hawaiian Studies will require 14,538 square feet of assignable floor (26,000-27,000 square feet of gross floor area) area by 1997. The types of spaces needed are as follows:

- faculty offices;
- 2 seminar rooms, each capable of holding 20 students;

FIGURE 1



UNIVERSITY OF HAWAII
LONG RANGE DEVELOPMENT PLAN
FUNCTIONAL AREAS MAP

- 3 classrooms, each with space for up to 55 students;
- an auditorium large enough to hold 100 people and capable of being opened up to the outside to accommodate overflow crowds;
- a resource center for the Center's research and instructional materials;
- space for student/peer counselors;
- faculty offices;
- outdoor ceremonial space for receiving visitors; and
- other instructional support spaces.

2.3 ALTERNATIVES CONSIDERED

2.3.1 NO ACTION ALTERNATIVE

As previously stated, the Center for Hawaiian Studies activities are currently located in Moore Hall. This is recognized as a temporary expedient, and the Center is in need of additional space to meet its academic commitments. If replacement facilities are not obtained, the program will be unable to meet its obligations. Consequently, the "No Action Alternative" is not a feasible alternative.

2.3.2 ACCOMMODATE THE PROGRAM IN EXISTING FACILITIES

This is not a feasible alternative because there are no existing facilities on campus which can be allocated to the Program.

2.3.3 ACCOMMODATE THE PROGRAM IN NEW FACILITIES ON DOLE STREET

Given the need for additional space to meet its academic commitments and objectives, this is the only practical alternative. It has been advocated for years by students and staff.

The Hawaiian Studies Program believes that the Center can be expected to attract statewide, national, and international attention. It believes that new facilities of adequate size and sympathetic architectural character are essential for meeting public expectations and needs.

The proposed Dole Street site has high public visibility. The Kapapa Lo'i o Kānewai Hawaiian Cultural Garden is adjacent to the site and is managed by the Center for Hawaiian Studies. With this example of Hawaiian agricultural practices already in place, it is natural to consider the adjacent land as a site for the Center. This site, which is somewhat removed from the instructional core of the campus, has a positive appeal which it is believed will benefit the program.

The Hawaiian Studies Program and the University believe that the Center for Hawaiian Studies is possibly the only campus facility that can be built adjacent to the Hawaiian Cultural Garden. It is also the site designated for this use on the University's Long-Range Development Plan. When viewed in this light, the Center represents the best alternative use for an under utilized site which will need to be built upon due to increasing scarcity of campus building sites.

2.4 DESCRIPTION OF THE RECOMMENDED DOLE STREET ALTERNATIVE

The proposed site is located immediately south of Dole Street opposite the Wa'ahila Faculty Apartments (see Figure 2). It is on the eastern side of the Center for Hawaiian Studies' Kānewai Garden. Most of the land is currently used as a temporary parking lot (see Figure 3). Kānewai Park is located a short distance to the east. The Hale Aloha Student Housing Complex and Mānoa Stream are located south of the project site.

The facilities described in this environmental assessment occupy only a portion of the site reserved for the Center for Hawaiian Studies in the University's Long-Range Development Plan. The remainder, which is between this first phase of development and the proposed Dole Street parking structure, is reserved for possible future expansion of the Center for Hawaiian Studies. The University's Long-Range Development Plan indicates that this reserve area may be incorporated into the adjoining parking facilities or used for other University purposes if it is not needed for the Center.

2.4.1 EXISTING USE

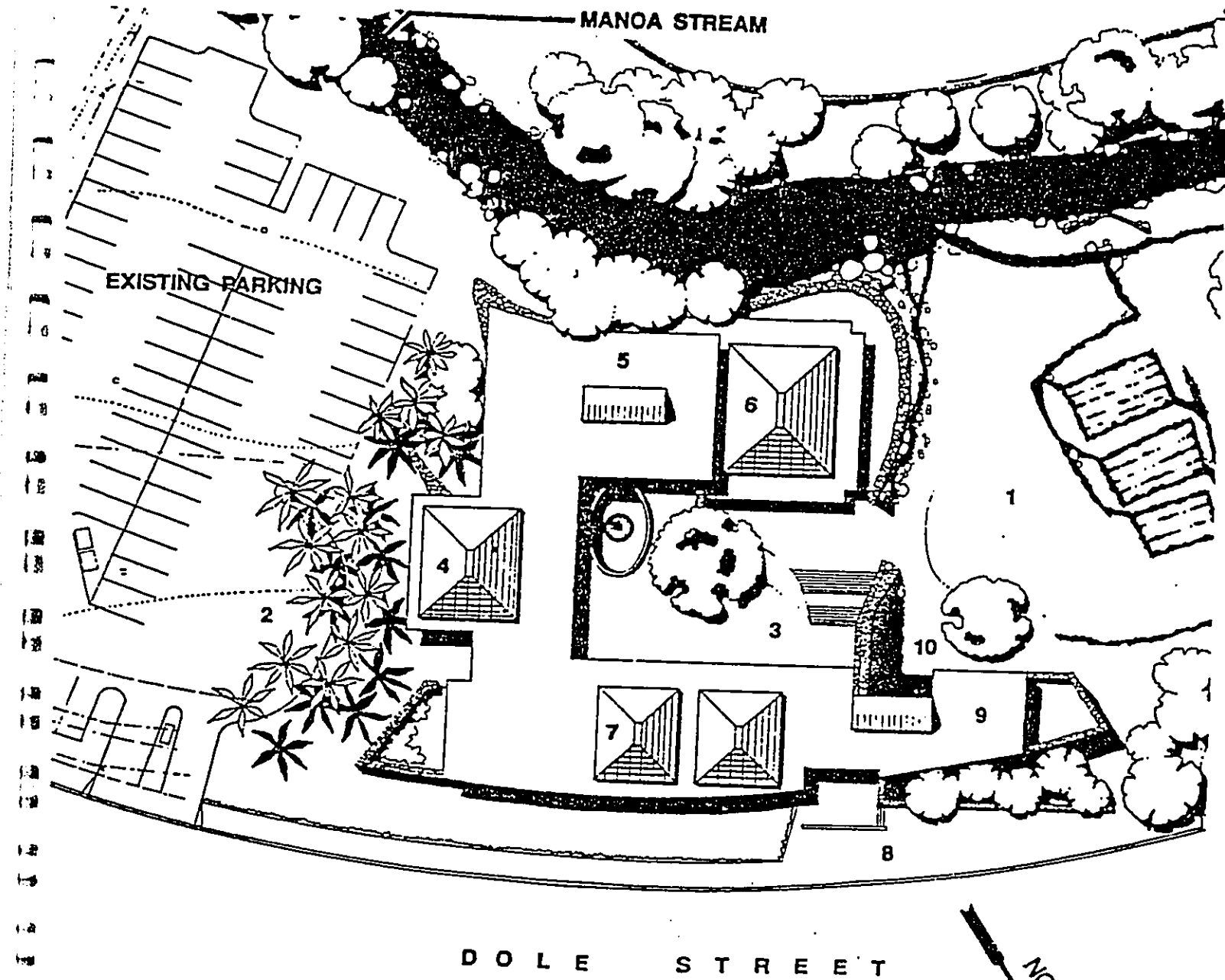
Most of the proposed site is currently used as a temporary surface parking lot. Old telephone poles are used to delineate rows of parking and the outer boundaries of the lot, and several light poles are present. The lot is open 24 hours per day, and parking fees are collected during daylight hours. Students are the predominant users of this parking lot. Uses adjacent to this site include Kānewai Hawaiian Cultural Garden on the western side, a portion of the temporary parking lot on the eastern side, student dormitories on the southern side of Mānoa Stream, and faculty housing on the northern side of Dole Street.

2.4.2 EXISTING PHYSICAL ENVIRONMENT

Most of the proposed site is covered with compacted gravel. Vegetation is limited to the steeply sloping area on the sides of Mānoa Stream and to the small gully that separates the proposed structures from Kānewai Hawaiian Cultural Garden. A small portion of the site was scrub vegetation, but has been subject to recent expansion of the *lo'i*. Breadfruit, kukuī, coconut trees and unnamed endangered plants have been transplanted to the expansion site by members of Ho'okahe Wai Ho'oulu 'Aina, a non-profit organization that has been working in Kānewai Hawaiian Cultural Garden without consent of the Hawaiian Studies Program which manages the Garden. The parking area is an extremely low-grade habitat, offering little or no shelter to birds or animals. The vegetation on the slopes consists of common introduced plant species.

FIGURE 2

PROPOSED SITE PLAN



LEGEND:

- 1 KAPAPA LO'I
 - 2 HAWAIIAN CULTURAL GARDEN
 - 3 COURTYARD
 - 4 LIBRARY
 - 5 FACULTY OFFICES
 - 6 AUDITORIUM
 - 7 CLASSROOMS
 - 8 STUDENT ENTRANCE
 - 9 MOPED PARKING
 - 10 STUDENT SERVICES
- 6

0 10 50 100

NORTH

FIGURE 3
EXISTING CONDITIONS

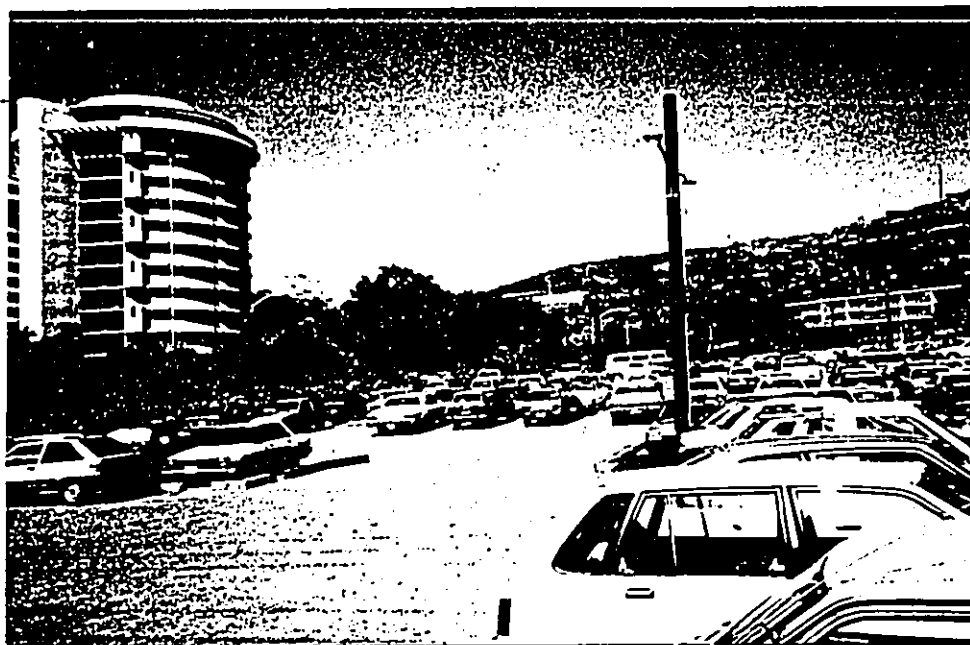


PHOTO OF PROJECT SITE LOOKING NORTH
CURRENTLY TEMPORARY PARKING LOT



PHOTO OF PROJECT SITE LOOKING SOUTH

2.4.3 DESCRIPTION OF THE PROPOSED PROJECT

A conceptual site plan for the proposed project is presented in Figure 2. The small, two-story structure on the northwestern corner of the site houses counseling rooms, study spaces, and a student lounge/meeting room that would be used principally by Operation Kua'ana, or the Student Services arm of the Center. Because the structure would be set in a cut, the floor elevation of the second story would be 63 feet above mean sea level (msl), two feet below Dole Street. Consequently, it would appear as a one-story structure when seen from the street.

The main building consists of a U-shaped structure located south and east of the counseling offices. It is separated from them by a broad outdoor stairway leading from Dole Street to the center of the complex. The leg of the "U" adjacent to Dole Street would be one-story high and has the same 63-foot (msl) floor elevation as the smaller building. It houses two classrooms, each capable of accommodating 50 students, a seminar room, and mechanical/restroom facilities. The back of the rooms face Dole Street, making it possible to close them off against street noise; access is from a broad *lānai* along their southern, or downhill side.

The eastern side, or base, of the "U" is two stories high. The upper floor is an extension of the northern wing and has the same 63-foot floor elevation; it houses a resource center, a computer laboratory, faculty offices, a seminar room and the departmental office complex. The ground floor of this wing contains a 55-seat classroom/lecture room, faculty offices and an auditorium.

The southeastern portion of the downhill side of the "U" is an extension of the resource center/lecture hall wing; it is also two stories high and has the same floor elevations. The upper floor contains the departmental complex, a mechanical room, and a seminar room. The ground floor of this wing contains faculty offices, a small meeting room, and restroom facilities. Adjoining the office wing is an auditorium designed for large meetings and the performing arts. The auditorium would have sliding glass doors and adjacent level terraces, on three sides. The doors can be opened for use by performers, as a reception area, and to accommodate overflow from the main room. A retaining wall along its southern side supports the *lānai* and protects it from flooding of Mānoa Stream.

The formal entrance to the complex is from a turnaround on the Koko Head side of the building. Persons entering from that side pass through a ceremonial protocol space before proceeding either to the offices on the upper floor or to the auditorium, classrooms, or other ground-level spaces.

As previously indicated, the area that would be occupied by the proposed building is currently part of a 250-stall surface parking lot used by the University. The new building will reduce the number of stalls by approximately 30 percent. The portion of the lot closest to the new complex would be paved to reduce and control the amount of dust that may blow into the building. The remainder of the parking lot would be left in its present condition.

Architecturally, the complex is intended as a strong statement of both traditional and modern Hawaiian aesthetic consciousness. Most rooms have views of Kānewai Hawaiian Cultural Garden and/or Mānoa Stream. Rather than establishing a sharp distinction between the natural surroundings and the built environment, an effort has been made to allow the outdoors to flow into and around the structures. The auditorium has been designed so that functions can use both indoor and outdoor space, depending upon the size and nature of the activity and the weather. The largest rooms in the complex have the high,

steeply pitched roof line characteristic of traditional Hawaiian structures. To provide an appropriate scale and to minimize impacts on views from neighboring areas, the architects have chosen not to use a single large roof over the entire structure. Instead, each large important room has its own exterior roof.

CHAPTER 3

RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES, AND CONTROLS

3.1 O'AHU GENERAL PLAN

The project's consistency with the Objectives and Policies of the City and County of Honolulu's General Plan most relevant to the proposed project are discussed below.

Education

Objective B. *To provide a wide range of educational opportunities for the people of O'ahu.*

Policy 4 Encourage the construction of school facilities that are designed for flexibility and high levels of use.

Policy 5 Facilitate the appropriate location of learning institutions from the preschool through the university levels.

Objective C. *To make Honolulu the center of higher education in the Pacific.*

Policy 1 Encourage continuing improvement in the quality of higher education in Hawai'i.

Policy 2 Encourage the development of diverse opportunities in higher education.

The construction of a facility for the Center for Hawaiian Studies would enable the Center to expand its academic program and provide more educational opportunities for the people of O'ahu, including the 144,000 Hawaiians who live on this island. The facilities are designed for flexibility and to facilitate after-hours use. They are consistent with the University's Long-Range Development Plan.

Culture

Objective A. *To foster the multi-ethnic culture of Hawai'i.*

Policy 1 Encourage the preservation and enhancement of Hawai'i's Diverse cultures.

Policy 2 Encourage greater public awareness, understanding, and appreciation of cultural heritage and contributions to Hawai'i made by the City's various ethnic groups.

Policy 3 Encourage opportunities for better interaction among people with different ethnic, social, and cultural backgrounds.

The educational and social activities that will take place at the Center for Hawaiian Studies will help to encourage greater public awareness, understanding, and appreciation of the cultural heritage and

contributions made by the Hawaiians. Counseling facilities and programs at the Center will contribute to the University's ability to meet the educational needs of Hawaiian students (who at present comprise only 5 percent of the student body at UHM).

3.2 PRIMARY URBAN CENTER DEVELOPMENT PLAN

The Primary Urban Center Development Plan Land Use Map designates the site as PF, Public Facility. The proposed project is an allowable use in this PF Zone.

3.3 CITY & COUNTY OF HONOLULU LAND USE ORDINANCE (LUO)

The Land Use Ordinance map designates the site as R-5, Residential District. Public facilities are a permitted use in the R-5 District.

3.4 UNIVERSITY OF HAWAII LONG-RANGE DEVELOPMENT PLAN

As indicated in Chapter 2, the University of Hawaii's Long-Range Development Plan recognizes the need for a Center for Hawaiian Studies at the University. It also designates the Dole Street site as the most appropriate location for that facility.

CHAPTER 4

PROBABLE IMPACTS

4.1 INTRODUCTION

This chapter discusses the potential impacts of the proposed action upon the natural and man-made environment, including, topography, drainage, water, noise, biological, transportation, cultural activities, utilities, socioeconomics, etc. The mitigation measures are summarized in Section 4.14.

4.2 TOPOGRAPHY AND DRAINAGE

4.2.1 TOPOGRAPHY

As shown in Figure 4, existing ground elevations on the site range from approximately 65 feet above sea level along Dole Street to just under 40 feet above sea level adjacent to Mānoa Stream. Most of the area has been filled and graded for use as a surface parking lot. As a consequence, it slopes gently (approximately 5 percent) from Dole Street towards Mānoa Stream.

The parking area was constructed atop fill that is believed to have originated from other University construction projects. A detailed fill history of the area is not available, but a comparison of topographic maps prepared as part of this study with those compiled in 1917 suggests that much of the area between Kānewai Hawaiian Cultural Garden and Kānewai Field was raised by 10 to 15 feet in the intervening years. Subsequent to the fill, a veneer of gravel was laid down in the area that is now used for parking.

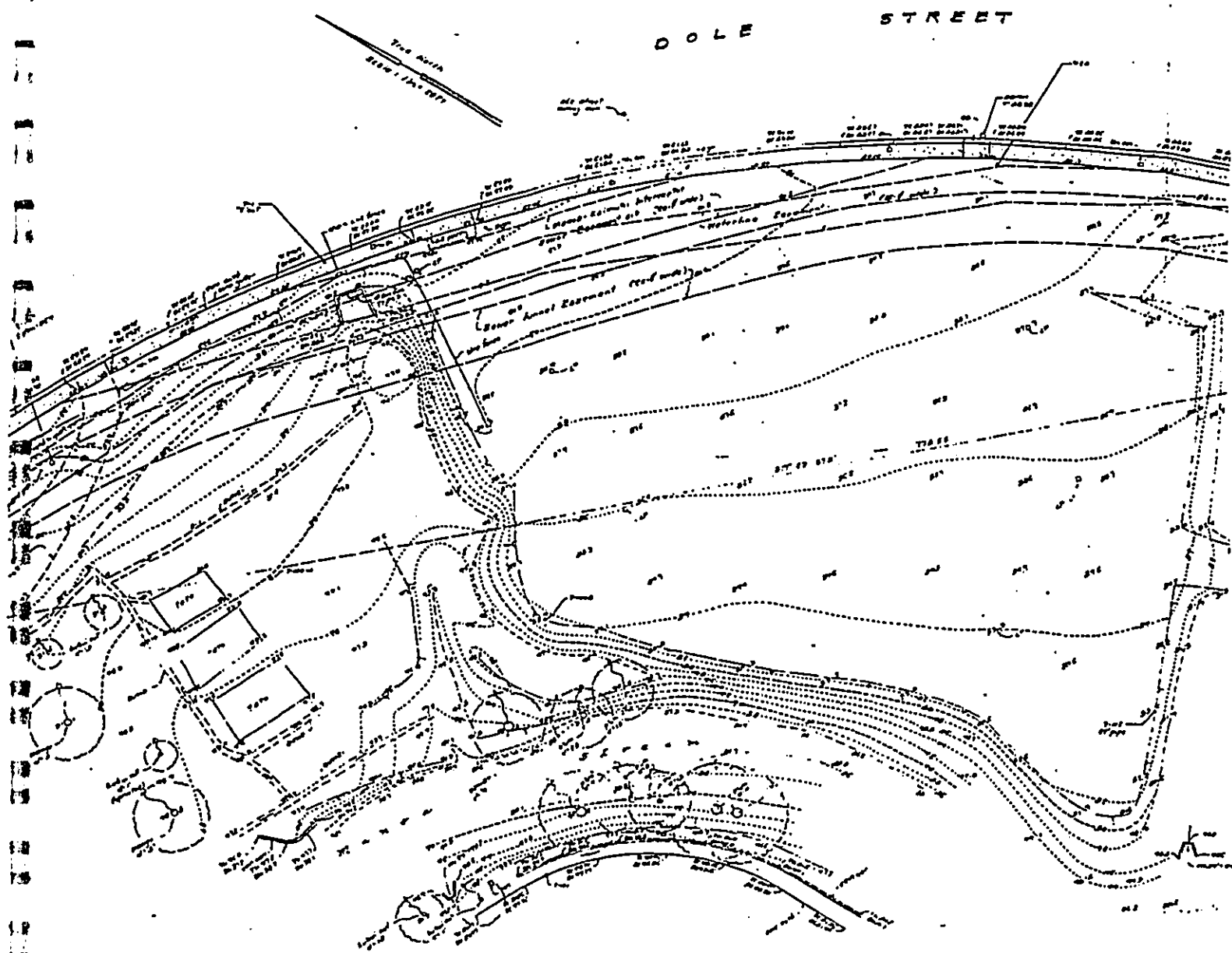
The pad elevations of the proposed buildings are generally close to the existing ground level, and thus relatively little grade change will be required. However, because of the presence of uncompacted earth fills, extensive earthwork will be required during construction. This will probably entail removal of the unengineered fill and re-grading using appropriate construction techniques. No unusual problems are anticipated.

While the overall change in topography is slight, the site's location near the Mānoa Stream floodway makes even minor topographic changes potentially significant because of the effect that they could have on channel capacity and flooding. These changes are discussed below.

4.2.2 DRAINAGE

The site is adjacent to Mānoa Stream. The Flood Insurance Rate Map (FIRM) for the area (Community-Panel Number 150001 0120 C, Map Revised: September 4, 1987) indicates that the base flood elevations for the stream segment adjacent to it are probably between 47 and 52 feet above mean sea level. The lowest floor elevation of the proposed structures is 53 feet, placing it above the flood level. A more detailed flood analysis will be undertaken to confirm this prior to finalizing the plans and applying

FIGURE 4
TOPOGRAPHIC MAP



TOPOGRAPHIC SURVEY MAP
UNIVERSITY OF HAWAII - MANOA
CENTER FOR HAWAIIAN STUDIES
Moshitz and Rosemer, Honolulu, Oahu, HAWAII
Scale: 1 in. = 75 ft
Topographic Map 1:10,000 April 30, 1970
DACA 44-111-0176

for a building permit. This more detailed study is deemed appropriate because of the small scale (1"=1,000 feet) of the FIRM map and because it is not known to what extent the fill that has been placed in the vicinity since the map was prepared may have affected the size of the floodway. The final design of the Hawaiian Studies complex will ensure that the ability of the Mānoa Stream floodway to accommodate the 100-year flood is not compromised.

One of the few areas where a noticeable grade change is planned is in the small gully that separates the majority of the site from Kānewai Hawaiian Cultural Garden. Here, an extension of the existing culvert beneath Dole Street will replace a portion of the existing unlined drainageway, and will be covered with fill. The new culvert will have the same capacity as the existing one, ensuring that no upstream flooding will result from the project. A new retaining wall will be constructed adjacent to the discharge point of the culvert to keep the discharge from it from undermining the fill material on which the corner of the auditorium will sit.

A small, shallow pool, which usually contains standing water, is located a few feet below the outlet to the Dole Street culvert. The results of soil investigations carried out for the project confirm that the pool is not fed by a spring; it is simply rainwater that has accumulated in a depression scoured by discharge from the culvert. The current design calls for excavation of the area while the drainage culvert is being extended; the pool will then be restored as a landscape feature of the finished complex.

Runoff from the project site will be collected in roof drains, swales, and buried pipes and discharged so that it flows safely into Mānoa Stream. Runoff from the remainder of the parking lot will continue to drain overland into Mānoa Stream. The topographic map indicates the presence of a small 'auwai that terminates shortly before the gully. The 'auwai, which apparently served as a localized irrigation feeder, will be channeled into the aforementioned pool.

4.3 WATER QUALITY

As noted above, runoff from the existing parking area flows overland to the edge of the lot and, from there, down the slope into Mānoa Stream. During light rains, the relatively permeable nature of the fill material and the coarse surface texture insures that most of the water percolates into the ground. Hence, little sediment reaches the stream; instead, it accumulates in shallow depressions within the lot. During heavier, more erosive rains, the infiltration capacity of the packed soil is exceeded, much of the sediment is suspended (by the action of the rain itself and by the movement of vehicles through the ponded water), and the suspended sediment is carried overland into Mānoa Stream.

Construction work on the site will temporarily expose more bare soil and disturb the veneer of coarse gravel fill in the parking area. This will slightly increase the erosion potential until the building foundations are in place (approximately 3-4 months). After that, the presence of impermeable surfaces (buildings, walkways, driveways, etc.) and landscaping will reduce the overall rate of erosion to below its current level. This, in turn, will have a beneficial effect on the quality of the water in Mānoa Stream.

Measures that will be taken to mitigate against potential adverse effects during the vulnerable construction phase of the project include:

- use of retaining walls, instead of vegetated slopes, on the steepest portions of the site;

- installation of temporary sedimentation basins to filter runoff during construction; and
- compliance with the erosion control provisions of the City & County of Honolulu grading ordinance.

Despite these measures, an extremely heavy rainfall at a time when the site is most disturbed would result in more sediment reaching the stream than is presently the case. The increase would be very small compared to the overall sediment load of the stream under such conditions, however, and no measurable biological effects are anticipated.

4.4 NOISE IMPACTS

4.4.1 CONSTRUCTION PERIOD

The operation of construction equipment on the site is expected to result in temporary increases in noise levels on adjacent property. The use of heavy equipment for grading, excavation, and erection of the Center buildings will create noise that will affect sensitive noise receptors such as the lo'i, faculty apartments and student dormitories. Activities that take place at the lo'i could be temporarily disrupted due to construction noise, primarily during the relatively short site preparation phase of the project. Proper mitigating measures (such as limiting construction to daylight hours) will be employed to minimize the noise impact. All work will also be monitored to comply with State and City and County of Honolulu noise limits.

4.4.2 OPERATION OF FACILITY

Most of the activities that will take place in the complex are inherently quiet and occur indoors. Consequently, they have little potential to significantly affect noise levels in surrounding areas.

The cultural activities planned for the auditorium will sometimes involve music and hula performances, as well as the congregation of up to a few hundred people. This, together with the fact that it can be opened on three sides, makes it the greatest potential noise source in the project. However, the modest noise levels anticipated at the source (less than 85 decibels at 50 feet), together with the distance (130 feet, to Dole Street and to 'Ilima dorm) and intervening buildings and earthen embankments, mean that noise levels at the property line will comply with all State and City and County of Honolulu noise standards.

The air conditioning plant for the Center for Hawaiian Studies is another potential noise source in the project. A study of the noise generated by the air conditioning plant was done by Y. Ebisu & Associates. The results of the study indicate that the noise generated by a cooling tower system within an enclosure and absorptive treatment should meet the the daytime and nighttime noise limits of the State Department of Health. Refer to Appendix A, RESULTS OF AIR CONDITIONING PLANT NOISE STUDY, for the noise study.

4.5 BIOLOGICAL IMPACTS

Nearly all of the site that would be occupied by the new facilities is now being used as a parking lot. A small portion of the site was scrub vegetation, but has been subject to recent expansion of the *lo'i*. Breadfruit, kukui, coconut trees and unnamed endangered plants have been transplanted to the site by members of Ho'okahe Wai Ho'oulu 'Aina. The *lo'i* extension will be removed and the Kua'ana Building will replace it. The fact that these plants were recently transplanted successfully to the site demonstrates that relocation is a viable mitigation measure. Landscaping that will be installed as part of the proposed project will actually increase the available wildlife habitat.

As indicated in the water quality section of this analysis, the project will not have a long term adverse effect on the volume of sediment or other pollutants flowing into Mānoa Stream. In fact, the project is likely to improve conditions by reducing the runoff of sediment, oil, grease, and other contaminants from the unpaved parking lot.

4.5.1 IMPACTS ON STREAM FAUNA

Several native and exotic crustaceans and fishes are found in Mānoa Stream. Among these are *Atyoida bisulcata* (Atyid shrimp or Opae kalaole), *Procambrus clarkii* (crayfish), *Awaous stamineus* (Goby or 'O'opu nakea), *Cyprinus carpio* (Carp or Koi), *Gambusia affinis* (Mosquitofish or Medaka), *Poecilia mexicana* (Shortfin molly), *Poecilia reticulata* (Guppy), *Xiphophorus helleri* (Green swordtail), *Tilapia mossambica* (Tilapia), *Eleotris sandwicensis* ('O'opu owao), *Stenogobius genivittatus* ('O'opu naniha), *Hypostomus* sp. (Armored catfish), *Macrobrachium lar* (Tahitian prawn), and *Macrobrachium grandimanus* (Opae 'oeha'a). These species of stream fauna are common and are found in other streams on the island of O'ahu. No endangered species inhabit Mānoa Stream.

No work will occur in the stream channel and there will, therefore, be no direct effect on the stream habitat. Erosion control measures will be implemented during construction. These measures may include sediment basins, sediment traps, interceptor ditches, and containment dikes. Sediment from the construction site could reach the stream during an extremely heavy rainfall event during the short period when the soil is exposed, but the native species are tolerant of periods of increased turbidity. Thus, significant habitat degradation would occur only in the extremely unlikely event that aquatic habitats are infilled with sediment.

4.6 VEHICULAR TRAFFIC, PARKING AND PEDESTRIAN MOVEMENT

4.6.1 VEHICULAR TRAFFIC

Vehicular access to the proposed facilities is via Dole Street. Passenger drop-off will be possible on the portion of Dole Street fronting the project, and a formal entrance will be provided from the parking lot located on the eastern side of the complex. Because the turnaround for the facility will be inside the parking lot control gate, it is anticipated that it will be used primarily on formal occasions, by persons with disabilities, or during periods of inclement weather.

Several aspects of the parking situation at the University are relevant to a consideration of the

project's traffic and parking impacts. First, parking privileges at the University are allocated on a University-wide basis; consequently, not all of the staff in the proposed Center for Hawaiian Studies will park in the lot adjacent to the building. Instead, they will be dispersed among the various existing areas according to priority. Second, the proposed Center will occupy a portion of an existing University parking lot and will eliminate approximately one-third of these stalls. Finally, most of the person-trips that are made to and from the facility will be made on foot rather than by vehicle.

In view of the foregoing, it is anticipated that construction of the proposed project will actually lead to a decrease in vehicular traffic on Dole Street. However, the reduction in parking stalls in that lot will lead to increased usage of other University parking areas and/or increased on-street parking until the University's long-range plans to construct additional parking facilities are implemented. No special measures to mitigate the reduction in the number of parking stalls are part of the proposed project. Hence, mitigation will require implementation of parking facilities included in the University's Long-Range Development Plan.

4.6.2 PEDESTRIAN TRAFFIC

Most of the pedestrian traffic generated by the proposed facilities will consist of students moving between the main campus and the classes and other activities they are involved in at the Center for Hawaiian Studies. The presence of sidewalks along both sides of Dole Street and a traffic signal at the intersection of Dole Street and East-West Road ensures that the movement can take place safely and efficiently. However, the proposed location involves somewhat longer travel times than do main-campus locations, and this will have to be taken into account in class scheduling.

4.6.3 MOPED/BICYCLE TRAFFIC

It is likely that some students and faculty will use bicycles or mopeds to commute to and from the Center for Hawaiian Studies. A bikeway is currently provided on Dole Street from University Avenue to St. Louis Drive. Traffic volumes and speeds are sufficiently low to make travel along Dole Street relatively safe. A space has been provided along Dole Street fronting the facility where bicycles and mopeds can be parked.

4.6.4 DELIVERY TRUCKS AND EMERGENCY VEHICLES

The Center for Hawaiian Studies will generate relatively little delivery truck traffic. Delivery vehicles that do need to access the facility will do so via the adjacent parking lot.

Emergency vehicle access will be via Dole Street, the formal entrance and turnaround and the parking lot entrance.

4.7 IMPACTS ON HISTORIC SITES AND CULTURAL ACTIVITIES

There are no known historic remains on the project site. Moreover, in view of the fact that the

great majority of it is covered with fill (some of it quite deep) that was used to create the existing parking lot, the probability of encountering significant historic or archaeological remains is slight.

The Center for Hawaiian Studies already uses Kānewai Hawaiian Cultural Garden for a number of cultural activities and programs. Students receive first-hand experience in taro cultivation; the garden adjacent to the *lo'i* is used to cultivate many plants traditionally used by Hawaiians for medicinal purposes; and gatherings are held at the *halau* on special occasions. All of these uses will continue upon completion of the proposed project.

In addition to the existing uses, the proposed facilities would allow new activities to take place. The auditorium would be used for dance and drama presentations and would provide a gathering spot for cultural meetings between Hawaiians and other Polynesian peoples. Academic and cultural conferences for the Hawaiian community are also planned. It is anticipated that the resource center will become a focus for research and academic interchange concerning a wide range of topics relevant to the Hawaiian people and their culture.

Several changes to Kānewai Hawaiian Cultural Garden have occurred since the draft environmental assessment was prepared. These changes were made without the permission from the Hawaiian Studies Program which manages the Garden. The taro *lo'i* has been extended further to the east and breadfruit, kukui, coconut trees and unnamed endangered plants have been transplanted to the site. These changes will be removed and relocated if it is found that they are within the project site.

4.8 ENERGY USE

At present, the only energy used on the project site is for the lights in the parking lot. Efficient low-pressure sodium lamps are used for this purpose, and the energy consumption is small.

The facilities now used by the Center for Hawaiian Studies on the main campus are lit by relatively efficient fluorescent lighting and are air-conditioned. The new facilities that are proposed would occupy much more area than the Center now uses. They will be at least partially air-conditioned and will consume proportionately more energy. However, the new space will utilize the latest energy saving equipment, and the architects for the project are currently exploring the possibility of using natural ventilation for at least part of the proposed complex. To the extent that the results of these studies show that this is a viable option, average energy use (per square-foot) will be reduced below current levels.

4.9 ADEQUACY OF PUBLIC UTILITY SERVICE

4.9.1 WATER SUPPLY

It is estimated that the Center for Hawaiian Studies will consume an average of 4,500 gallons of water per day. Current plans call for this to be obtained through a 2-inch meter that will connect to the existing Honolulu Board of Water Supply (BWS) 12-inch line along Dole Street. This line is part of the BWS's Kaimukī system, and the BWS has indicated that there is sufficient line and reservoir capacity in the existing system to meet the needs of the new facility.

4.9.2 WASTEWATER COLLECTION AND DISPOSAL

Wastewater from toilets, sinks, drinking fountains, and other sources within the complex will be collected in a drainpipe on its downhill side. The waste will then be carried underground to the large City & County of Honolulu Department of Public Works sewer tunnel that runs beneath the site. The connection will be via a manhole located approximately 120 feet west of the Center as required by the Department of Public Works. The tunnel, other transmission facilities to which it is connected, and the Sand Island Wastewater Treatment Plant and outfall at which the effluent is eventually treated and discharged have sufficient excess capacity to accommodate the increased flow.

Temporary adverse impact on activities in the *lo'i* area anticipated during the construction of the sewer line connection. The sewer line connection will cross a portion of the *lo'i*, the valuable plant materials affected will be removed to a temporary location and returned to the garden or other locations within the Center after the line is completed.

4.9.3 ELECTRICAL POWER SUPPLY

Peak electrical power use at the Center for Hawaiian Studies is expected to be 200 kilowatts. Average electrical energy consumption (assuming air-conditioning) will be approximately 150 kilowatts. Electrical power will be obtained from the Hawaiian Electric Company (HECO) through its existing transmission and distribution system. Preliminary analysis has shown that sufficient capacity exists at several points in the vicinity of the site. However, the exact point at which the connection will be made has not yet been determined. Lines will be underground, with any necessary transformers situated on pads adjacent to the new facility.

4.9.4 TELECOMMUNICATIONS

There is no existing telephone service on the project site. However, the Hawaiian Telephone Company maintains telephone lines along Dole Street. All University calls are routed through a central University switchboard. A new telecommunication system is presently being installed which will provide all campus facilities with adequate voice, data and video capabilities. The proposed Center will be serviced by the new system.

4.10 ADEQUACY OF PUBLIC SERVICES

4.10.1 POLICE PROTECTION

Police protection for the area is provided by the Honolulu Police Department and the University's Campus Security Unit. The police operate on a 24-hour basis from the main station located on Beretania Street approximately 1.5 road miles west of the site. Campus Security regularly patrols the campus grounds, including the project site, also on a 24-hour basis. Between these two agencies, adequate police protection will be available to the Center for Hawaiian Studies. Because Campus Security already patrols the parking lot, the new facility is not expected to significantly increase its work load.

4.10.2 FIRE PROTECTION

Fire protection for the site is provided by the Honolulu Fire Department. Several fire stations are close enough to respond to fires on the site within five minutes. These include the Mō'ili'ili Fire Station at the corner of University Avenue and Date Street, the Waikīkī Fire Station at the corner of Kapahulu Boulevard and Monsarratt Avenue, and the Kaimukī Fire Station at the intersection of Koko Head Avenue and Pāhoa Avenue. Fire hydrants are located along Dole Street, and sufficient pressure and reservoir capacity is available.

4.10.3 SOLID WASTE COLLECTION AND DISPOSAL

It is anticipated that most of the solid waste generated at the proposed new facilities will consist of paper and paper products. Small amounts of plastic, metal, and other materials commonly used in the office and classroom environment will also be produced. Some food wastes can be expected to find their way into the solid waste stream.

Based on experience at other University office/classroom buildings, it is expected that the new facilities will generate approximately 1 cubic yard of solid waste per day. This volume can readily be accommodated by the existing collection and disposal system.

4.11 VISUAL IMPACTS

Construction of the Center for Hawaiian Studies will significantly change the appearance of, and views across, the site. These changes are described below.

The gravel surface, small guardhouse, and old telephone poles currently present on the parking lot give the area a rather make-shift appearance. Ground level views across the site from Dole Street and the Wa'ahila Faculty Apartments are relatively unobstructed because of the existing conditions of the proposed project site. Construction of the proposed facilities will alter this.

The view to the east from the Kānewai Hawaiian Cultural Garden will be altered by the proposed project. Currently, the view to the east is of scrub vegetation and the unpaved parking lot. The proposed building and landscaping will replace the vegetation and parking lot and is designed to create a visual connection between the building and the Garden.

The University's Long Range Development Plan and the Ka'u Report recommend that the Center for Hawaiian Studies recall the character of pre-contact Hawaiian architecture and be a bold statement of the University's commitment to Hawaiian culture and the Hawaiian people. To accomplish this, the proposed design draws on architectural features characteristic of major public structures from the pre-contact period. Such structures were typically windowless and designed to instill a sense of awe and exclusion with their sense of sanctity. This was done using large, unbroken stone walls and steeply pitched roofs, with the roof always dominating the walls. The proposed design is intended as a continuation of this tradition.

Adherence to this design theme means that the facility will, through the use of unique forms

and strong materials, draw more attention to itself than a more common design of comparable size. The positive side to this is that it will serve as the eastern gateway to the University, immediately informing passers-by that they are entering a special place and creating a visual symbol for the resurgence of Hawaiian culture in the state. On the negative side, the structures will eliminate the existing open seaward views from the sidewalk and road; in addition, the high roof-line will make the structures more visible to residents of the Wa'ahila Faculty Apartments and the nearby dormitories on the west side of Mānoa Stream than would a more modest design.

The ground floor elevation of the uppermost buildings is 63 feet above sea level, and the buildings will have a maximum height of approximately 35 feet. Thus, the roof peaks will extend to 98 feet above sea level. Since the elevation of the nearest apartments in the Wa'ahila Faculty Apartment complex is approximately 85 feet, the roof-lines will intrude on seaward views from these apartments. Because of the steep pitch to the roofs, only a small portion of the viewing arc will be affected, but the change will be noticeable when compared to the present unobstructed condition. Keeping the building height below the view planes from the apartments would require a substantially lower structure, and this would make it impossible to utilize traditional Hawaiian shapes and proportions. The use of copper as a roofing material will ensure that the roof itself is attractive, and the steep pitch will prevent dirt, refuse, and other materials from accumulating on the roof, making it more visually acceptable.

It is also worth noting that the design is such that persons on Dole Street will perceive the structures as single-story buildings. This is consistent with the treatment given the University's Law School and the residences located further to the east along Dole Street.

4.12 AIR QUALITY IMPACTS

No air quality monitoring stations are located on or immediately around the project site. However, data from comparable locations elsewhere in the state suggest that existing air quality is relatively good.

There are two principal existing sources of air pollutant emissions that affect the site. The first is the combustion byproducts from automobiles that pass on nearby Dole Street and/or use the parking lot that now occupies the site. The second is particulate matter that becomes airborne as a result of wind blowing across the parking lot and from the movement of automobiles within the lot.

Over the long-term, it is anticipated that the project would improve air quality in the vicinity of the site. The improvement will result from the reduced size and paving of the existing gravel parking lot and from the smaller number of vehicles that would be able to use it.

Some potential for increased particulate emissions will occur during the construction phase of the project as a result of the earthmoving that will be required. This will be relatively short-lived, probably no more than a few months. Moreover, the relatively frequent showers that occur in the area and the prevalence of northeast tradewinds that will carry the dust away from the closest residences (the Wa'ahila Faculty Apartments) suggest that this will not constitute a major problem.

The proposed project is expected to slightly increase the amount of airborne particulate matter that reaches the Hale Aloha Dormitory Complex on the opposite side of Mānoa Stream during

construction. However, this will be mitigated by the dense screen of vegetation along the stream. Total particulate emissions are expected to be far less than those from the Wa'ahila Reservoir project that is now under construction immediately above the Wa'ahila Faculty Apartments.

4.13 SOCIOECONOMIC IMPACTS

The parking stalls that currently occupy the site will be displaced, and the persons who use them will have to find alternate parking. Replacement stalls will eventually be provided in a parking structure that the University intends to construct on the eastern portion of the existing parking area, but in the interim persons will be forced to park in other University lots. Since most of the costs associated with operating the lot are fixed, the decrease in the number of stalls will not be offset by a corresponding decrease in operating costs. Consequently, it is expected that the change will decrease the University's net income by approximately \$2,000 per month.

It is anticipated that the proposed project will cost approximately \$6.5 million to design, construct, and furnish. Typically, 40 to 50 percent of a building's cost are for labor, suggesting that the proposed project will generate approximately \$2.6 million in gross wages. Dividing this by the average 1988 construction worker wage of \$39,000/year (in 1988 dollars) and increasing the result by 25% to account for fringe benefits suggests that the project would generate about 84 person-years of employment in the construction industry. Assuming that approximately three-quarters of this direct construction industry employment is on-site and one-quarter is off-site and that the construction is spread over a period of approximately two years, average on-site construction employment is expected to be on the order of 30.

This level of employment is small relative to total construction employment on Oahu (estimated at over 18,000 in 1988) and does not involve specialized skills. Consequently, it is anticipated that construction labor needs can be met from the existing labor pool. Thus, no in-migration and no significant effect on population or the cost of providing public services is anticipated.

Annual operating costs for the Center for Hawaiian Studies are expected to rise as the number of activities it engages in grows and as more students take advantage of the courses that it offers. To the extent that its course offerings and programs attract students who would not otherwise be at the University, total expenditures by the University will increase and the faculty and staff of the Center will add to total employment. To the extent that the Center simply attracts students who would otherwise be enrolled in other academic programs at the University, it will not affect overall University expenditures because there will be a corresponding decrease in employment by other University departments.

The balance between these two possibilities is difficult to forecast at the present time. Nonetheless, the counseling component that is incorporated into the Center's program suggests that it is likely to result in more persons of Hawaiian ancestry entering the University and in a higher retention rate among those who do enroll. In view of this, it is anticipated that total employment at the University may increase slightly as a result of the programs housed in the new facilities. This, in turn, will require a higher level of State expenditures. To the extent that the increased educational attainment of graduates raises their lifetime earning power or economic productivity, the costs will be recovered through taxes.

4.14 SUMMARY OF PROPOSED MITIGATION MEASURES

The proposed project is relatively small in scale, and the emphasis in its design has been on avoiding adverse effects through good design rather than on mitigating them once they have been initiated. Examples of the techniques that have been used include following the existing topography of the site, siting outside the Mānoa Stream 100-year flood plain to avoid flood damage, and the use of one- and two-story buildings to reduce possible effects on views from nearby properties.

In addition to these design features, several other provisions of the proposed action are intended solely to mitigate otherwise unavoidable adverse effects. Examples of these measures include the following:

- providing underground storm sewers to accommodate the storm runoff that is discharged from the culvert beneath Dole Street;
- using retention basins to limit soil loss from the site and stream sedimentation during construction;
- issuing advance notice to parking lot users who would be displaced by the construction so that they can make alternate parking arrangements;
- continuing with the University's plans to increase the number of on-campus parking stalls, including construction of a new parking facility near Kānewai Field; and
- retaining the taro *lo'i* and reported groundwater seep along the southern side of Dole Street as an adjunct to the project.
- relocation of recently transplanted plants including the unnamed "endangered species" plants.

CHAPTER 5
DETERMINATION

Title 11, Chapter 200-12 of the State Department of Health's Administrative Rules establishes the criteria that are to be used in determining the significance of potential impacts of a proposed action. A comparison of the effects identified in this environmental assessment with these criteria demonstrates the following:

- The proposed Center for Hawaiian Studies will not involve the irrevocable commitment or destruction of valuable cultural or natural resources. On the contrary, the complex has been sited almost entirely on relatively recent, unvegetated fill material currently being used as a temporary parking lot.
- Use of the site for the proposed facility will not curtail beneficial uses of the environment. In fact, it will maintain or improve all of the natural values that the site currently possesses and allow students at the University to take greater advantage of the values inherent in Kānewai Hawaiian Cultural Garden.
- The proposed use is consistent with the State's long-term environmental policies and goals as expressed in Chapter 343, Hawai'i Revised Statutes. Specifically, it is in accordance with the guidelines for population; the preservation of land, water, mineral, visual, air, and other natural resources; the protection of endangered species of indigenous plants and animals and the fostering of native species; the protection of scenic, historic, and cultural resources; and the fostering of economic development that takes advantage of Hawai'i's unique circumstances and which promotes the State's other long-range policies. The proposed action is energy efficient and is appropriately located with respect to the existing transportation system. It promotes greater achievements in the areas of education and culture, community life, and citizen participation.
- The proposed Center for Hawaiian Studies is intended to make a major contribution to the education and cultural awareness of persons of Hawaiian ancestry; it may also improve their economic and social welfare.
- The project will comply with all public health laws and regulations and will not, therefore, substantially affect public health.
- The proposed action does not involve substantial secondary impacts or the degradation of environmental quality. Emissions from project-related sources are minimal, it is downwind from the most sensitive receptors (with respect to the tradewinds), and measures will be taken to restrict wind-blown soil loss during construction. All things considered, both particulate and automotive emissions from the site are expected to be lower with the project than with the existing parking use.
- Construction and operation of the proposed facility will not contribute significantly to a cumulative decline in environmental quality, will not affect an environmentally sensitive area, and will not place the proposed use in a hazardous area.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

CHAPTER 5
DETERMINATION

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- The proposed Center for Hawaiian Studies is intended to make a major contribution to the education and cultural awareness of persons of Hawaiian ancestry; it may also improve their economic and social welfare.
- The project will comply with all public health laws and regulations and will not, therefore, substantially affect public health.
- The proposed action does not involve substantial secondary impacts or the degradation of environmental quality. Emissions from project-related sources are minimal, it is downwind from the most sensitive receptors (with respect to the tradewinds), and measures will be taken to restrict wind-blown soil loss during construction. All things considered, both particulate and automotive emissions from the site are expected to be lower with the project than with the existing parking use.
- Construction and operation of the proposed facility will not contribute significantly to a cumulative decline in environmental quality, will not affect an environmentally sensitive area, and will not place the proposed use in a hazardous area.

In view of the foregoing, it is concluded that the project will not require the preparation of an environmental impact statement.

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CHAPTER 6
COMMENT LETTERS AND RESPONSES

The proposed action is being proposed by the Department of Accounting and General Services, State of Hawai'i.

Agencies Consulted

State Agencies

- Department of Health
- Department of Land and Natural Resources
- Office of State Planning
- Office of Environmental Quality Control

County Agencies

- Department of General Planning
- Department of Land Utilization
- Department of Public Works
- Department of Transportation Services
- Board of Water Supply

The following are comment letters and letters of response to the various agencies. Comments from these agency letters have been incorporated into this environmental assessment.

JOHN WAIHEE
GOVERNOR OF HAWAII



RECEIVED
AUG 23 1991

BELT, COLLINS & ASSOCIATES

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

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

In reply, please refer to:
File:
91-3-257x

August 7, 1991

Mr. Perry J. White
Director of Planning
Belt Collins & Associates
680 Ala Moana Boulevard, Ste 200
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Environmental Assessment for the State of Hawaii
Center for Hawaiian Studies, University of Hawaii
at Manoa

Thank you for allowing us to review and comment on the subject
Environmental Assessment for the State of Hawaii Center for
Hawaiian Studies, University of Hawaii at Manoa. We do not have
any comments to offer at this time.

Very truly yours,

A handwritten signature in cursive script, appearing to read "John C. Lewin for".

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

BCA
BELT COLLINS
& ASSOCIATES

Engineering • Planning
Landscape Architecture

650 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

Phone: (808) 521-5361, Fax: (808) 538-7819
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October 15, 1991
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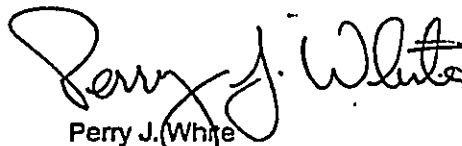
Dr. John C. Lewin, M.D.
Director of Health
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

Subject: Environmental Assessment for the State of Hawaii Center for Hawaiian Studies
University of Hawaii at Manoa

Dear Dr. Lewin:

Thank you for your letter concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We are pleased that the document answered your questions concerning the proposed project.

Sincerely,



Perry J. White
Director of Planning

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

JOHN WAIHEE
GOVERNOR OF HAWAII

RECEIVED

BELT, COLLINS & ASSOCIATES



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

REF:OCEA:WK

AUG 20 1991

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI
Dan T. Kochi

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

File No.: 92-041
Doc. No.: 1397E

Mr. Perry White, Director of Planning
Belt Collins & Associates
680 Ala Moana Blvd., First Floor
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Environmental Assessment for the State of Hawaii
Center for Hawaiian Studies. University of Hawaii,
Manoa

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

Historic Preservation Program Concerns:

A review of our records show that there are no known historic sites at the project location. The environmental assessment notes that the area has been filled and suggests that this fill will protect any historic sites that may have been buried (p. 16). This statement appears to conflict with a description of the construction process that specifies that fill will be removed and the parcel re-graded prior to construction (p. 11). If it is the case that the fill to be removed is the fill protecting possible historic sites, then we believe that this project may have an "adverse effect" on historic sites, including human burials. Nearby, beneath Dole Street, the remains of at least 18 individuals of probable Hawaiian ethnicity were recovered only 50 to 80 cm beneath the base of modern fill over a meter deep. If similar remains are located at the project site then removal of modern fill and re-grading will almost certainly disturb them. Thus, for this project to have "no adverse effect" on historic sites that may be present below the fill, we would recommend that, prior to the initiation of construction at this site, a burial treatment plan be worked out with the O'ahu Island Burial Council, and that a qualified archaeologist monitor any below-grade construction activities. In addition, our office would require an acceptable final report of monitoring activities.

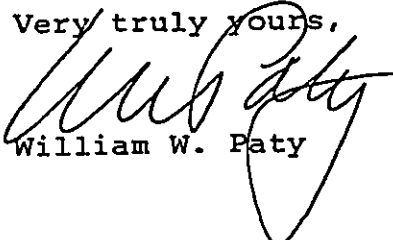
Mr. Perry White

- 2 -

Doc. No.: 1397E

Thank you for giving our Department the opportunity to comment on this matter. Please feel free to call me or Sam Lemmo at our Office of Conservation and Environmental Affairs, at 548-7837, should you have any questions.

Very truly yours,


William W. Paty

cc: DAGS
OEQC

BCA
BELT COLLINS
& ASSOCIATES

Engineering • Planning
Landscape Architecture

690 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

Phone: (808) 521-5361, Fax: (808) 538-7819
Hawaii • Singapore • Australia • Hong Kong • Japan • France • Thailand

October 16, 1991
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91P-499/033-45

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

Subject: Environmental Assessment for the State of Hawaii Center for Hawaiian Studies
University of Hawaii at Manoa
File No. 92-041
Document No. 1397E

Dear Mr. Paty:

Thank you for your August 20, 1991 letter concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We appreciate the time that you and your staff spent reviewing the document.

After receiving your letter, Mr. Dwight Kauahikaua, the project architect, met with Mr. Nathan Napoka of your staff to discuss the concerns relative to human burials that were expressed in it. A copy of Mr. Kauahikaua's follow-up letter concerning this subject is attached.

While Mr. Napoka has not yet responded to Mr. Kauahikaua's letter, it is my understanding that the issue is well on its way to resolution. Copies of your letter to me and Mr. Kauahikaua's letter to Mr. Napoka will be included in the Environmental Assessment.

I will be away from the office for several weeks. However, Mr. Kauahikaua is able to respond to any further questions you may have. He can be reached at 526-2283.

Sincerely,



Perry J. White
Director of Planning

Attachment

(1) October 1, 1991 Letter from Dwight Kauahikaua to Mr. Nathan Napoka

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

KAUAHIKAUA & CHUN/ARCHITECTS

DWIGHT PAUANI KAUAHIKAUA, AIA
DANIEL GARY CHUN, AIA

October 1, 1991

0064E/90-1/51

Nathan Napoka
State of Hawaii
Dept. of Land and Natural Resources
33 South King Street
Honolulu, Hawaii 96813

Subject: University of Hawaii Manoa, Center for Hawaiian Studies

Dear Mr. Napoka,

It was a pleasure meeting with you to discuss reinterment of ethnic Hawaiian remains from Kanewai within the Center for Hawaiian Studies. I am sure that their inclusion in the project will lend a powerful spiritual aspect to the Center.

I am transmitting to you a letter from William W. Paty containing your Department's comments on the Environmental Assessment (EA). In this letter Paty refers to the 18 individuals we discussed and recommends that a burial treatment plan be worked out for similar remains which may be encountered during construction. My question is whether the location and general design concept discussed at our meeting of September 3, 1991 can become a burial treatment plan acceptable to the Oahu Island Burial Council. This location could be the burial site if additional human remains are encountered during construction.

Our preliminary research suggests that the makai portion of site of the Center was formerly taro lo'i. The section of the building adjacent to Dole Street straddles the former auwai which ran at the base of Wa'ahila Ridge. Portions of the site have also been used as a sand quarry and as a staging area for construction of the Dole Street Extension. The numerous utility easements containing "live" infrastructure means that the mauka portion of the site has been extensively excavated in the past. However, I remain dedicated to the proper treatment of burials at Kanewai.

Very truly yours,


Dwight Pauani Kauahikaua

cc: DAGS/Herbert Iwai
UH/Brian Kashiwaeda; Haunani-Kay Trask
BCA/Perry White

KAWAIAHAO PLAZA HALE MAUKA
567 SO. KING STREET SUITE 108
HONOLULU, HAWAII 96813

(808) 526-2283

JOHN WAIHEE
GOVERNOR



RECEIVED
JUL 29 1991

BELT COLLINS & ASSOCIATES

BRIAN J. J. CHOY
Director

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813

July 26, 1991

Mr. Perry White
Belt Collins & Associates
680 Ala Moana Blvd., First Floor
Honolulu, Hawaii 96813

Dear Mr. White,


SUBJECT: Environmental Assessment for the State of Hawaii
Center for Hawaiian Studies
University of Hawaii at Manoa

We have reviewed the subject document and have the following comments to offer:

1. Please identify the proposing agency; and
2. Please identify the agencies that were consulted during the environmental assessment preparation process.

Enclosed is a document that provides guidance for the preparation of environmental assessments. Please call Jeyan Thirugnanam at 586-4185 if you have any questions. Thank you.

Sincerely,


Brian J.J. Choy
Director

Enclosure

ENVIRONMENTAL ASSESSMENT CONTENTS AND NOTICES OF DETERMINATION

This document is intended to provide guidance to the public regarding the environmental review process; specifically for the preparation of environmental assessments. The reader is referred to Chapters 341 and 343 of the Hawaii Revised Statutes and Chapter 200 of Title 11, Department of Health Administrative Rules, prior to any document preparation. (References in brackets refer to either Hawaii Revised Statutes, Chapter 343, or Title 11, Chapter 200, Department of Health Administrative Rules.)

The purpose of preparing an environmental assessment is to determine if the impacts of a proposed action are significant enough to warrant the preparation of an Environmental Impact Statement [11-200-2].

An Environmental Assessment is a document which is prepared for a proposed action which triggers the Environmental Impact Statement Process. Briefly summarized, the eight triggers that require the preparation of an environmental assessment [§343-5, §11-200-6] are:

- (1) Use of State or County lands or funds
- (2) Use within Conservation District Lands
- (3) Use within the Shoreline Setback Area
- (4) Use within any Historic Site or District
- (5) Use within the Waikiki Special District
- (6) Amendments to a County General Plan (except for those initiated by the County)
- (7) Reclassification of Conservation Lands
- (8) Construction or modification of helicopter facilities

During the preparation of an environmental assessment, the procedures listed in §11-200-9, Early Assessment, must be followed. Historically, one of the steps frequently overlooked has been §11-200-9 (a)(4). This section requires consultation with agencies having jurisdiction or expertise as well as consultation with citizen groups and individuals.

The proposed action must be described in its entirety; therefore, projects should not be done on an incremental basis to avoid the preparation of an environmental impact statement [§343-6(a)(2), §11-200-7].

Environmental assessments must include (but are not limited to) the following [§11-200-10]:

- (1) Identification of applicant or proposing agency;
- (2) Identification of approving agency, if applicable;
- (3) Identification of agencies consulted in making assessment;
(Failure to identify consulted agencies will result in the delayed publication of the submitted environmental assessment in the OEQC Bulletin.)
- (4) General description of the action's technical, economic, social, and environmental characteristics;
*(Some GENERAL guides to the content of each characteristic are listed below:
This section should generally answer the "What, Why, Where, When, Who and How" of the proposed action and its short and long-term impacts.*

TECHNICAL

Describe the purpose of the project and in general terms how the project will be accomplished. If applicable, the dimensions of the project should be included.

SOCIO-ECONOMIC

Describe the economic impacts on the immediate community as well as on the community at large. The assessment may include, but not be limited to, providing income for the county/state and creating employment opportunities in areas with high unemployment rates.

Describe issues pertinent to the specific project. If an action involves a targeted segment of the population, any/all positive or negative effects must be discussed. In addition, any other issues pertinent to the action (such as: population density, recreational facilities, childcare provisions, relocation of residences, etc.) must be discussed.

The Socio-Economic Impact does not apply to the impact of the action on the proposing agency or applicant. For state or county projects, the cost of the proposed action should be included in the assessment.

ENVIRONMENTAL CHARACTERISTICS

Describe, as applicable, aesthetics, the generation of air pollution, traffic congestion, noise levels, effects on water quality or any other aspect of the environment which may be affected by the proposed action.

- (5) Summary description of the affected environment, including suitable and adequate location and site maps;
Include flora, fauna, significant habitats, historical/archeological and cultural sites. Describe adjacent natural resources. Sensitive habitats (such as a refuge) or bodies of water (stream, river, ocean, estuary, anchaline pond) adjacent to a proposed project must be addressed.
- (6) Identification and summary of major impacts and alternatives considered, if any;
Identify positive as well as negative major impacts. The impacts of concern are of the proposed action on the surrounding environment and community, not the impact of the environment on the action. The alternatives considered should be included when applicable.
- (7) Proposed mitigation measures, if any;
It is not sufficient to write one sentence stating that appropriate mitigation measures shall be instituted wherever necessary. The potential problems must be identified and appropriate mitigation described in general terms. Best Management Practices should be cited whenever possible. For mitigation at Historic Sites, the environmental assessment must include: 1) copies of the Mitigation and/or Preservation Plans prepared for the Department of Land and Natural Resources' State Historic Preservation Program; and 2) a copy of the approval letter for the plans from the State Historic Preservation Program.
- (8) Determination;
The agency shall consider every phase of a proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short and long-term effects of the action in making a determination.

A determination letter from the Approving Agency must be submitted with the environmental assessment identifying it as either a Negative Declaration or Environmental Impact Statement Preparation Notice. This letter is a formal declaration stating that the document has been reviewed and the action will or will not have significant impacts on the environment. This must be the Approving Agency's determination, not the consultant's determination.
- (9) Findings and reasons supporting determination; and
Evidence justifying the statement that the proposed action will or will not result in any significant environmental impact, must be included.
- (10) Agencies to be consulted in the preparation of the environmental impact statement, if applicable.
This is necessary only for assessments which are determined to require environmental impact statements.

An environmental assessment is submitted to an Approving Agency which determines if the proposed action will have a significant impact [§11-200-11(a), §11-200-12]. If the agency's review determines that the proposed action will not have a significant impact, a Negative Declaration is issued. If the agency determines the action will have a significant impact, an Environmental Impact Statement Preparation Notice is issued.

The Notice of Determination (Negative Declaration or EIS Preparation Notice) which is issued by the Approving Agency must include [§11-200-11(c)]:

- (1) Identification of applicant or proposing agency
- (2) Identification of accepting authority
- (3) Brief description of proposed action
- (4) Determination
- (5) Reasons supporting the determination
- (6) Name, address and phone number of contact person for further information

Both Negative Declarations and EIS Preparation Notices must be submitted by the Approving Agency to OEQC for publication in the OEQC Bulletin [§343-3, §11-200-3, §11-200-11(b)]. OEQC has a "Document for Publication Form" which should be filled out and submitted to OEQC with the Negative Declaration or Environmental Impact Statement Preparation Notice.

NEGATIVE DECLARATIONS ARE NOT "ACCEPTED." Once a determination has been made, the document stands as a Negative Declaration unless it is legally challenged. There is a 60 day "Statute of Limitations" [§343-7(d)] during which the public or other agencies may challenge the determination of "negative declaration." A Negative Declaration is not considered "accepted" as with Final EIS's, therefore, it is not republished in the OEQC Bulletin.

If you have any questions or need further information on the Environmental Review Process, please call the Office of Environmental Quality Control at 548-6915.

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

600 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

Phone: (808) 521-5361, Fax: (808) 538-7319

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October 16, 1991
\\haw-stud\response
oeqc10-16.le1
91P-500/033-45

Mr. Brian J.J. Choy, Director
Office of Environmental Quality Control
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Subject: Environmental Assessment for the State of Hawaii Center for Hawaiian Studies
University of Hawaii at Manoa

Dear Mr. Choy:

Thank you for your July 26, 1991 letter concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We appreciate the time spent by you and your staff reviewing the document.

The Final Environmental Assessment will identify the proposing agency and list the agencies that were consulted during its preparation as suggested in your letter. Omission of the first item was an oversight. The draft EA did not list the consulted parties because the consultation process was not completed.

If you have any other questions, please call me or Gregg Onuma at 521-5361.

Sincerely,

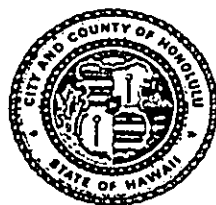


Perry J. White
Director of Planning

cc: Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

BENJAMIN B. LEE
CHIEF PLANNING OFFICER
ROLAND D. LIBBY, JR.
DEPUTY CHIEF PLANNING OFFICER

VW 7/91-2405

August 7, 1991

Belt Collins & Associates
680 Ala Moana Boulevard, 1st Floor
Honolulu, Hawaii 96813

Attention: Mr. Perry White

Gentlemen:

Environmental Assessment for the Center of
Hawaiian Studies, University of Hawaii, Manoa

In response to your letter of July 15, 1991 transmitting an Environmental Assessment for the Center for Hawaiian Studies, we have the following comments:

1. The proposed Center is in accord with the City's General Plan and Primary Urban Center Development Plan Land Use Map; the latter designates the subject property for Public Facility use which is compatible with this proposed Center.
2. We concur with your conclusion that this proposed Center will not have a significant adverse impact on the environment and will not require the preparation of an environmental impact statement.

Thank you for the opportunity to comment on this Environmental Assessment. Should you have any questions, please contact Verne Winquist of our staff at 527-6044.

Sincerely,

A handwritten signature in black ink, appearing to read "Benjamin B. Lee".

BENJAMIN B. LEE
Chief Planning Officer

BBL:lh

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

Phone: (808) 521-7361, Fax: (808) 531-7319

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October 16, 1991
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91P-501/033-45


Mr. Benjamin B. Lee
Chief Planning Officer
Department of General Planning
City & County of Honolulu
650 South Beretania Street
Honolulu, Hawaii 96813

Subject: Environmental Assessment for the State of Hawaii Center for Hawaiian Studies
University of Hawaii at Manoa

Dear Mr. Lee:

Thank you for your August 7, 1991 letter (Reference VW 7/91-2405) concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We are pleased that you concur with the conclusion that the proposed project would not have a significant effect on the environment.

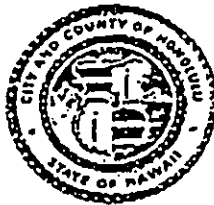
Sincerely,


Perry J. White
Director of Planning

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

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

FRANK F. FASI
MAYOR



SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

C. MICHAEL STREET
DEPUTY DIRECTOR

In reply refer to:
ENV 91-151

July 31, 1991

Mr. Perry J. White
Director of Planning
Belt Collins & Associates
680 Ala Moana Boulevard
Honolulu, Hawaii 96815

Dear Mr. White:

Subject: Environmental Assessment (EA) For Center For Hawaiian Studies, University of Hawaii at Manoa, TMK:2-8-29

We have reviewed the subject EA and have the following comments:

1. Existing sewers are adequate for the proposed center.
2. Connection should be made to sewer manhole #5A of the Sewer Tunnel Relief Increment 4 Project which was modified to provide the connection for the proposed project (see attached map).
3. The sewer connection charge of \$15,150 is still required.
4. A drainage report should be submitted to our Drainage Section, Division of Engineering, for review and approval.

Very truly yours,

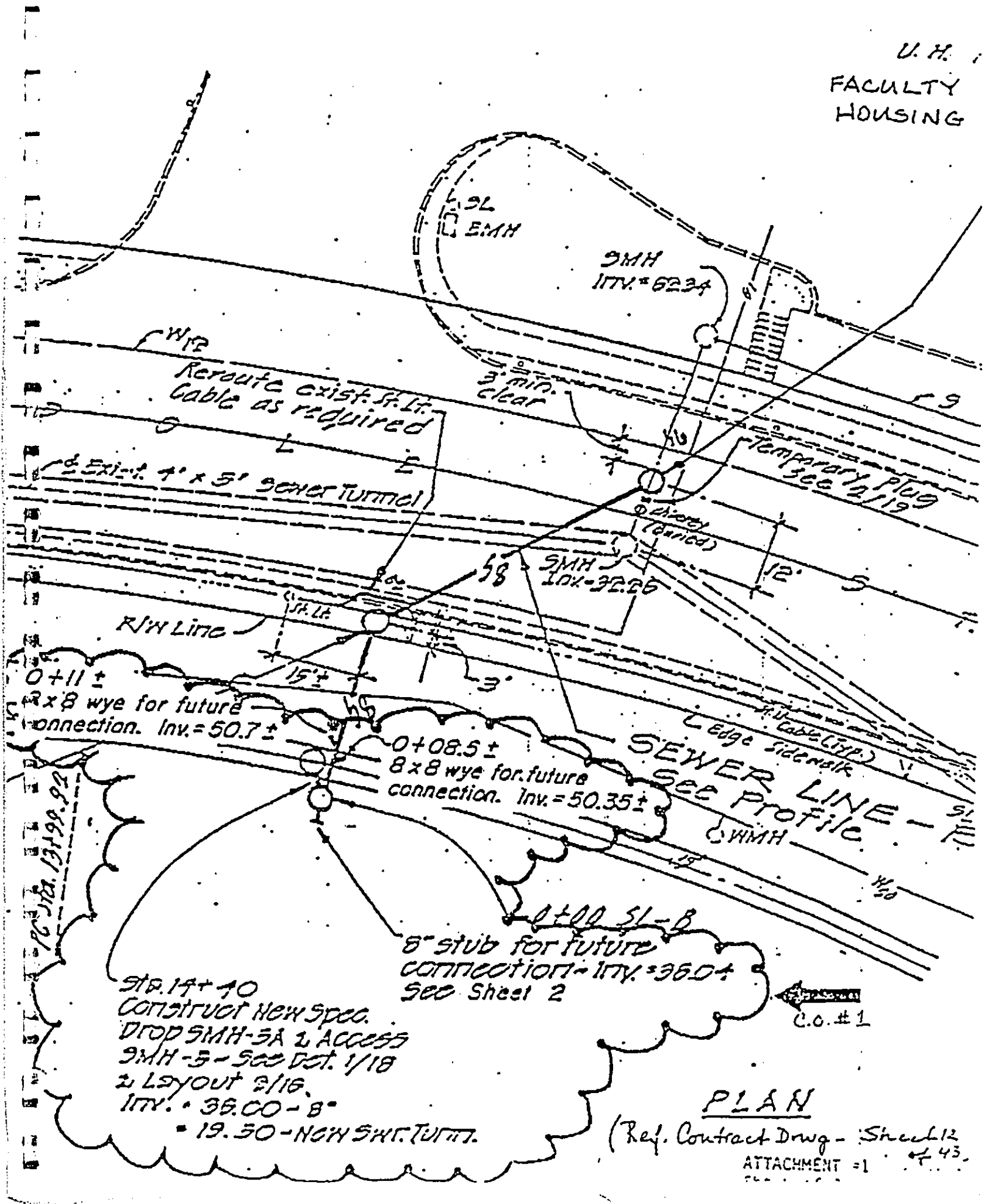
C. Michael Street

SAM CALLEJO
Director and Chief Engineer

Attach.

bcc: Division of Engineering
WWM

U. H. FACULTY HOUSING



Reroute exist. st. Lt. Cable as required

9L EMH
9MH
INV. = 62.34

3' min. clear

Temporary plug see 2/19

58 9MH
INV. = 32.26

R/W Line

0+11 ±
8x8 wye for future connection. Inv. = 50.7 ±

0+08.5 ±
8x8 wye for future connection. Inv. = 50.35 ±

SEWER LINE - SEE PROFILE

0+00 51-B
8" stub for future connection - INV. = 36.0 ±
See Sheet 2

ST. 19+40
Construct New Spec.
Drop 9MH-5A & Access
9MH-5 - See Det. 1/18
& Layout 2/16.
INV. = 36.00 - 8"
= 19.50 - NEW SHT. TUNNEL.

C.O. #1

PLAN

(Ref. Contract Drwg - Sheet 12 ATTACHMENT = 1 of 43)

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BELT COLLINS
& ASSOCIATES

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680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

Phone: (808) 521-5361, Fax: (808) 538-7819

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October 16, 1991
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91P-503/033-45

Mr. Sam Callejo
Director and Chief Engineer
Department of Public Works
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies*
University of Hawaii at Manoa

Dear Mr. Callejo:

Thank you for your July 31, 1991 letter (Reference ENV 91-151) concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We appreciate the time you and your staff spent reviewing the draft document. Responses to your specific comments are as follows:

- (1) Thank you for confirming that the existing sewers are adequate for the proposed facility.
- (2) Connection to the sewer system will be made as you suggested.
- (3) The University of Hawaii has been apprised of the sewer connection fee.
- (4) A drainage report will be submitted to the Drainage Section for review and approval.

If you have any questions, please call me or Gregg Onuma at 521-5361.

Sincerely,



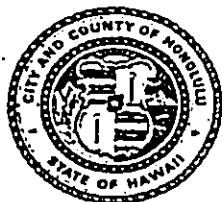
Perry J. White
Director of Planning

Attachment

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

JOSEPH M. MAGALDI, JR.
DIRECTOR

AMAR SAPPAL
DEPUTY DIRECTOR

TE-3845
PL91.1.235

August 7, 1991

Mr. Perry J. White
Director of Planning
Belt Collins & Associates
680 Ala Moana Boulevard, First Floor
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Proposed Center for Hawaiian Studies
University of Hawaii at Manoa
TMK: 2-8-29: 01

This is in response to your letter dated July 15, 1991 requesting our comments on the subject project.

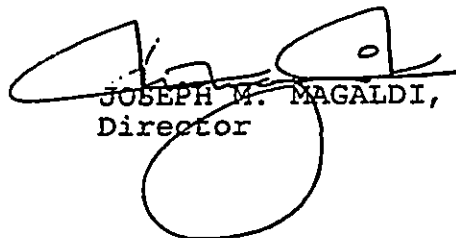
1. The vehicular access point should be constructed as a standard City dropped driveway.
2. Adequate pavement width for two-way traffic should be provided from the turnaround area to Dole Street.
3. Loading zones and the passenger drop-off/pick-up area should be located on the project site and designed such that no maneuvering of vehicles occur on Dole Street.
4. The bicycle/moped parking area provided along Dole Street should be located on-site.
5. Comments under section 4.6.3 in the subject document should be revised. A bikeway facility is currently provided on Dole Street from University Avenue to St. Louis Drive.
6. The completion date of the proposed project should be coordinated with the University's plans to construct additional parking facilities.

Mr. Perry J. White
Page 2
August 7, 1991

7. Construction plans should be submitted to our department for review.

Should you have any questions, please contact Lance Watanabe of my staff at 523-4199.

Sincerely,



JOSEPH M. MAGALDI, JR.
Director

BCA
BELT COLLINS
& ASSOCIATES

Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

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October 16, 1991
\\haw-stud\response
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91P-502/033-45

Mr. Joseph M. Magaldi, Jr., Director
Department of Transportation Services
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: Environmental Assessment for the State of Hawaii Center for Hawaiian Studies
University of Hawaii at Manoa

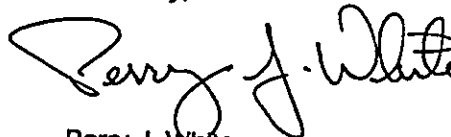
Dear Mr. Magaldi:

Thank you for your August 7, 1991 letter (Reference TE-3845/PL91.1.235) concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We appreciate the time you and your staff spent reviewing the document.

In response to item number 5 in your letter, the EA will be revised to reflect the fact that a bikeway facility is currently provided on Dole Street from University Avenue to St. Louis Drive. I have discussed the other items in your letter with the project architect and representatives of the University. Based on this discussion, it is my understanding that it will be possible to comply with all of your suggestions.

If you have any questions, please call me or Gregg Onuma at 521-5361.

Sincerely,



Perry J. White
Director of Planning

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

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



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AUG 15 1991

BELT, COLLINS & ASSOCIATES

FRANK F. FASI, Mayor
DONNA B. GOTH, Chairman
WALTER O. WATSON, JR., Vice Chairman
SAM CALLEJO
EDWARD Y. HIRATA
MORICE H. YAMASATO
KAZU HAYASHIDA
Manager and Chief Engineer

August 12, 1991

Mr. Perry J. White
Belt, Collins & Assoc.
680 Ala Moana Blvd.
Suite 200
Honolulu, Hawaii 96813

Dear Mr. White:

Subject: Your Letter of July 15, 1991 Regarding the Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii-Manoa

Thank you for the opportunity to review and comment on the Environmental Assessment for the proposed Center for Hawaiian Studies. We have the following comments:

1. The existing water system is presently adequate to accommodate the proposed project. There are no existing water services to the proposed site. Water service connection to the high service 20-inch main or the low service 12-inch main along Dole Street will depend on the project's water meter elevation.
2. A water allocation for the project should be obtained from the State Department of Land and Natural Resources. Water System Facilities Charges will be assessed for water transmission and daily storage.
3. If a three-inch or larger meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.
4. The proposed development will be subject to our cross-connection control requirements prior to the issuance of the building permit.

BCA
BELT COLLINS
& ASSOCIATES

Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813

Phone: (808) 521-5361, Fax: (808) 538-7819
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October 16, 1991
\\haw-stud\response
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91P-505/033-45

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City & County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813
Subject: Environmental Assessment for the State of Hawaii Center for Hawaiian Studies
University of Hawaii at Manoa

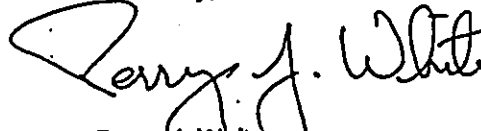
Dear Mr. Hayashida:

Thank you for your August 12, 1991 letter concerning the draft *Environmental Assessment for the State of Hawaii Center for Hawaiian Studies, University of Hawaii at Manoa*. We appreciate the time you and your staff spent reviewing the document. Responses to your comments are given below.

- (1) It is my understanding that the project engineers have discussed the water connection with members of your staff and that the connection will be to the 12-inch line along Dole Street.
- (2) The Department of Accounting and General Services has indicated it will follow the correct administrative procedures for obtaining a water allocation
- (3) The project will require only a one-inch meter.
- (4) The proposed design will comply with the Board of Water Supply's cross-connection control requirements.

If you have any further questions, please feel free to call Mr. Leland Lee on our staff at 521-5361.

Sincerely,



Perry J. White
Director of Planning

Attachment

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

HO'OKAHE WAI HO'OULU 'ĀINA

KĀNEWAI CULTURAL GARDEN
P.O. Box 61494 • Honolulu, Hawai'i 96839

RECEIVED
SEP 12 1991

BELT, COLLINS & ASSOCIATES

August 26, 1991

Mr. Perry J. White
Belt Collins & Associates
680 Ala Moana Blvd.
Honolulu, Hawai'i 96813

Dear Mr. White,

Re: Environmental Assessment for proposed UH-Manoa,
Center for Hawaiian Studies Building.

Thank you for the opportunity to comment on the above referenced project. By way of this letter Ho'okahe Wai Ho'oulu 'Aina requests to be a consulted party in the environmental assessment process pursuant to Chapter 343 HRS, and §11-200-10 of the Department of Health Environmental Impact Statement Rules.

Ho'okahe Wai Ho'oulu 'Aina is a not-for-profit Hawai'i corporation that has developed and maintained Kapapa Lo'i 'O Kanewai (Kanewai Hawaiian Cultural Garden) for more than ten (10) years. This Hawaiian educational and cultural organization has a deep and lasting commitment to maintain the Garden as one small remnant of true Hawai'i left in urban Honolulu. Section 2.3.3, Third Paragraph contains a misrepresentation inasmuch as the Garden is *jointly managed* by our organization and Hawaiian Studies.

The value of the Garden as an educational resource has been shown by the over 5,000 annual visitors to the site. The Garden is also vitally important to the preservation and propagation of Hawaiian food crop cultivars and rare native Hawaiian plants - and has been so noted by experts in the field. The Garden holds great religious and cultural significance to many native Hawaiian elders and cultural practitioners.

We wish to bring your attention to significant omissions and incorrect information in the Environmental Assessment document (EA) in regards to the Project Description and Probable Impacts. Because of these deficiencies, appropriate mitigation measures and alternatives are also lacking. A determination of "no significant impact" cannot be made unless these concerns are described and resolved.

Mr. Perry J. White
Hawaiian Studies Environmental Assessment
August 26, 1991
Page 2

The Ka'u: Hawaiian Studies Task Force Report called for the proposed building to be located entirely in the parking lot or "high ground" area, east of the Wa'ahila drainage. However, the building footprint as proposed in the EA will extend into the lowland Garden area obliterating a historic 'auwai, taro lo'i, and endangered species of dry forest native Hawaiian plants. Statements that the project will only impact a parking lot (Chapter 1 - Summary, 2.4, 2.4.1, 2.4.2, 2.4.3 & 4.5) are untrue and need to be corrected.

This underlying assumption precludes the EA from considering a whole host of other project environmental and cultural impacts which need to be disclosed. Listed below are undisclosed impacts with reference to the sections from which they have been omitted.

1. The topographic map and several references to the Garden are out of date. Ongoing cultural activity has changed the extent and configuration of the taro lo'i, the 'auwai, and the plant collections (4.1.4, 4.2.2, 4.5). Construction activity, just within the building footprint alone, will destroy portions of 'auwai and lo'i structures, obstruct the irrigation system, and destroy plants (4.2.2, 4.3).
2. The construction of the proposed AC unit and student services building will destroy several federally listed endangered species which are established at the site (4.3).
3. Construction noise and dust will severely disrupt cultural and educational activities in the Garden (4.4.1, 4.12).
4. Wastewater connection for the building to the sewer line stub will require a long trench, in excess of thirty feet (30') deep, to run across the Garden where 'auwai, lo'i, and established plantings currently exist. This will cause permanent and irreparable damage to those specimens, destroy the hand crafted cultivation structures, and cause extreme stress, discomfort and nuisance to the users of the Garden.
5. The presence of the proposed building along the eastern edge of the Garden will significantly impact the viewshed for cultural practitioners visiting or working in the Garden (4.11). No longer in a bowl of green, users of the Garden will see a large concrete and metal flat-topped building dominating the landscape. The purported Hawaiian design may mitigate this impact, nevertheless the Gardens's viewshed should be considered. While the design theme may be

exciting and provocative, we would like to note the negativevisual impact of the flat-topped student services building that intrudes furthest into the Garden and will dominate the view from our perspective.

6. Another visual impact (4.11) not discussed is the night time lighting. Planting and other ceremonies are conducted at night in the Garden. What type of exterior lighting is proposed, and what will be the visual impact looking from the Garden?
7. Operation of the facility (4.4.2) will have a negative noise impact on cultural activities at the Garden because plans call for the air conditioning (AC) units to be located within the Garden, upwind of the primary cultural activity area. The incessant noise associated with large AC units and its negative impact on existing cultural uses in the Garden needs to be disclosed.
8. Historic "remains" (4.7) as witnessed by members of our organization do exist buried below the fill where much of the building will be located. Care should be taken during any subsurface excavation.
9. Kapapa Lo'i 'O Kanewai is not a "historic remain" but is rather a living historic and cultural site, whose 'auwai irrigation system has been in nearly continuous use by generations of taro cultivators for more than 500 years. The area has gained new significance in the last 10 years as a pu'uhonua or refuge for plants, people and things Hawaiian. It is known as a spiritual, cultural, historical, educational and environmental resource and treasure to a broad spectrum of the public. The proposed building will disrupt the spirit of the place by constructing a large AC unit and a two story concrete building within it, destroying plant specimens, obliterating taro lo'i, and rerouting the ancient 'auwai around or under the two story building. These impacts must be addressed in the EA.
10. Mitigation measures and alternatives considered (4.14) should include a discussion of:
 - moving the student services building out of the Garden;
 - modifying the student services building footprint to avoid the 'auwai, lo'i and plant collections;

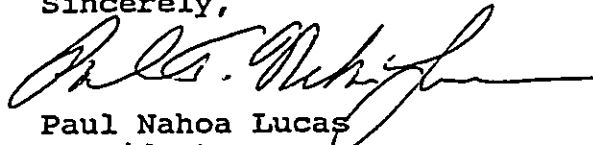
Mr. Perry J. White
Hawaiian Studies Environmental Assessment
August 26, 1991
Page 4

- relocating the AC units to the parking lot side of the building or onto the roof (hidden in a pitched roof structure);
- alternative wastewater connection point or connection route;
- incorporating a pitched roof structure on the student services building to improve its visual impact;
- limited or visored exterior lighting to prevent nighttime glare into the garden.

Pursuant to §11-200-12 of the EIS Rules, the construction of the proposed building appears to involve an irrevocable commitment to the loss or destruction of a natural and cultural resource; also the proposed project may curtail the range of beneficial uses of the environment, and will substantially effect rare and endangered species. Therefore, without the incorporation of adequate mitigation measures, the project may have a significant impact on the environment and an Environmental Impact Statement should be prepared.

Ho'okahe Wai Ho'oulu 'Aina supports the construction of a Hawaiian Studies building at Kanewai, however we must also uphold our stewardship responsibility to the existing Kapapa Lo'i 'O Kanewai. We believe that, with a complete analysis of potential impacts and adequate mitigation measures to address those impacts, both of these objectives can be met. Please do not hesitate to call me at 521-2302 if we can assist with revisions to the Environmental Assessment document. Please address your response to our concerns to Ho'okahe Wai Ho'oulu 'Aina, P.O. Box 61494, Honolulu, 96839. Mahalo.

Sincerely,


Paul Nahoa Lucas
President

cc: D. Kauahikaua
B. Kashiwaeda - UHFM&P
H. Iwai - DAGS
H. Trask - CHS
Lo'i Committee
OEQC

October 15, 1991
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91P-497/033-45

Mr. Paul Nahoia Lucas, President
Ho'okahe Wai Ho'oulu 'Aina
P.O. Box 61494
Honolulu, Hawaii 96839

Subject: Environmental Assessment
Center for Hawaiian Studies

Dear Mr. Lucas:

We received your August 26, 1991 letter concerning the environmental assessment for the proposed Center for Hawaiian Studies. You and other members of *Ho'okahe Wai Ho'oulu 'Aina* clearly spent a considerable amount of time reviewing the draft environmental assessment. Point-by-point responses to the concerns expressed in your letter are presented below. These deal first with the general issues raised in the initial paragraphs of your letter and then with the numbered items that followed.

Consulted Party Status

There is no official "consulted party" status in the environmental assessment process. That is conferred on parties that take part in the preparation of environmental impact statements. Section 11-200-10(3) of the State EIS Regulations simply calls for a listing of the agencies that were consulted in making the assessment. In circulating the draft of the Environmental Assessment (EA) to those parties that we thought might have a special interest in the proposed Center for Hawaiian Studies, the University went well beyond the steps normally required. However, since it is my understanding from telephone conversations with Keoni Fairbanks, another member of your organization, that your goal in asking for consulted party status was to insure a response to your concerns, I believe this letter should be satisfactory.

Management Responsibility for *Kapapa Lo'i 'o Kanewai*

The second paragraph of your letter states that *Ho'okahe Wai Ho'oulu 'Aina* is a non-profit organization that has developed and maintained *Kapapa Lo'i o Kanewai* for more than ten years. It also asserts that the *Lo'i* is jointly managed by *Ho'okahe Wai Ho'oulu 'Aina* and the Hawaiian Studies program and asks that the Environmental Assessment state this.

After reviewing the documentary evidence that was made available to us and discussing the issue with representatives of the University of Hawaii and the Hawaiian Studies Program, we have come to the conclusion that the EA's statement that *Kapapa Lo'i* is managed and administered solely by the Hawaiian Studies Program is correct. The bases for this conclusion are summarized below.

According to *Chronology of Kanewai, Kapapa Lo'i and Hawaiian Studies at Manoa* by Keoni Fairbanks, Lilikala Kame'elehiwa, Davianna McGregor, and Kekuni Blaisdell (25 May 1988 Revised Draft, page 5):

June 17-19 (1985), at the Hawaiian Studies in Education Conference at the Kamehameha Schools, UHM Director of Hawaiian Studies Abraham Pi'ianai'a agreed to the recommendation of Ho'okahe Wai Ho'oulu 'Aina that Kapapa Lo'i be "recognized, maintained, and funded as an integral project of the UHM Hawaiian Studies Program." Desiring College Work-study students were thereupon assigned to the Kapapa Lo'i.

Since that time, essentially all of the funds and the vast majority of the physical labor and expertise needed to maintain and operate the *lo'i* have come from the University, not from the Ho'okahe Wai Ho'oulu 'Aina. Moreover, the Ka'u Report makes it clear that the Lo'i Committee is only advisory to Hawaiian Studies with respect to management of the *lo'i*. Thus, while it is recognized that your organization's interest in the *lo'i* has continued, it is evident that Ho'okahe Wai Ho'oulu 'Aina does not have official responsibility for, or control over, activities there. For this reason, the EA will continue to list the Hawaiian Studies Program as the sole manager of Kapapa Lo'i.

Boundaries of the Center for Hawaiian Studies Building Site

As you note in your letter, the *Ka'u: Hawaiian Studies Task Force Report* called for the proposed Center for Hawaiian Studies complex to be located on the high ground to the east of Kapapa Lo'i. What you fail to note is that the *Ka'u* Report envisioned a much larger site for the Center than was actually made available for it when the University added the Center to its Long Range Development Plan (LRDP). It is the reduction in the amount of high ground that the University made available for the new building that led the architects to propose using approximately 2,500 square feet of sloping land west of the high ground (or about 3.5% of the total site area) for the student services (*kua'ana*) building.

As you may know, when the University of Hawaii's Long Range Development Plan (LRDP) for this area was first adopted, the proposed Hawaiian Studies Center was sited inside the 1.7-acre area occupied by Kapapa Lo'i. If it had been constructed in this location, it would have resulted in the loss of about 40 percent of the *lo'i*. When the full impact of this was recognized, the University of Hawaii Board of Regents shifted the Center eastward onto a site previously designated for the development of student housing. We believe this is a good indication of the great importance that the University attaches to the *lo'i*. Based on our interaction with University representatives and the project architects during preparation of the EA, I believe that this respect for the *lo'i* has characterized all of the planning for the proposed Center for Hawaiian Studies.

Two additional points are particularly germane to the decision to use a small part of Kapapa Lo'i for the proposed Center. The first is that at the time it was made the area was covered with *haole koa*; it was most definitely not part of the *lo'i*; and, at the time of a detailed survey conducted in February 1990 it did not contain endangered plants. It is my understanding that these were introduced by members of Ho'okahe Wai Ho'oulu 'Aina after plans for the Center for Hawaiian Studies were announced and after representatives of the Center had begun meeting with you to discuss their plans.

The second is that Kapapa Lo'i is an integral part of the Hawaiian Studies Center. Thus, it is incorrect to imagine the two as separate, with a firm physical or jurisdictional boundary between them. Rather, the land occupied by both the *lo'i* and the proposed building site are both administered by the Center for Hawaiian Studies. The University views them as a single unified complex, with the spiritual force from the *lo'i* mixing freely with the academic and social activities that would take place in the Center's buildings and formal courtyards. Thus, the distinction that you attempt to make appears to be artificial from both a functional and jurisdictional viewpoint. This linkage between Kapapa Lo'i and the Center is made explicit in the 17 January 1988 amendment to the LRDP that established the present site for the Center, which states that the Center is to have a direct physical and visual connection to Kapapa Lo'i. This is the same amendment that "saved" the *lo'i* from being the site of the entire Center.

"Undisclosed Impacts"

Beginning on page 2 of your letter, you list a number of what you refer to as "undisclosed impacts." Your assertions, together with our discussion of their validity, are presented below.

- (1) **Comment.** *The topographic map and several references to the Garden are out of date. Ongoing cultural activity has changed the extent and configuration of the taro lo'i, the 'auwai, and the plant collections (4.1.4, 4.2.2, 4.5). Construction activity, just within the building footprint alone, will destroy portions of the 'auwai and lo'i structures (sic), obstruct the irrigation system, and destroy plants (4.2.2, 4.3).*

Response. The discussion contained in the draft EA was based on conditions as they existed at the time of the survey (30 April 1990). Subsequent to that time, the "...ongoing cultural activities..." which you refer to extended the plantings into the area that has been planned for the *Kua'ana* Building. Whether or not the expansion was a deliberate attempt to block the proposed project is an interesting question, but it is not the central point. What is important is that: (1) the extension of the 'auwai and the introduction of native plantings into an area that was previously covered with scrub vegetation came after Ho'okahe Wai Ho'oulu 'Aina was fully aware of plans for the proposed buildings and (2) the expansion involved land which Hawaiian Studies manages and for which it is officially responsible.

The Environmental Assessment will be revised to reflect the general nature of the changes that have been made to the vegetation and the lo'i. This will be based in part on a new survey of the area being conducted by the State Department of Accounting and General Services, and it will show the new lo'i, *kukui*, breadfruit, and coconut trees that have been planted in the interim.

The plants that are thriving on the proposed site of the *Kua'ana* building were all brought to Hawaii by early Hawaiian migrants. These introduced plants are the ones most Hawaiians relate to because they provided the food and fiber that were extensively used in the culture. As a class, they are relatively abundant, easily grown, and easily relocated. The latter attribute is particularly important in this particular situation because it means that it is feasible to remove the plants from their current location and replant them in the landscaping for the proposed Center with little difficulty or likelihood of mortality, and the project plans call for this.

It is also worth noting that, as indicated by the Chapter 5.0 of the *Project Development Report Attachment 1*, the landscaping for the proposed project will result in more endemic/indigenous plants being present on the property than is presently the case.

- (2) **Comment.** *The construction of the proposed AC [air-conditioning] unit and student services building will destroy several federally listed endangered species which are established at the site (4.3).*

Response. As noted above, the unnamed "endangered species" referred to in your letter are not native to the site. Instead, members of Ho'okahe Wai Ho'oulu 'Aina transplanted them to the garden after being informed of plans to develop the Center for Hawaiian Studies. The EA will be revised to document the presence of these plants, but it will also note the circumstances surrounding their presence. In order to do this in a complete and comprehensive fashion, I would appreciate it if, within the next week or so, you would provide me with information concerning the locations from which the plants were obtained and the permits under which the gathering of endangered species was conducted.

The fact that these plants were recently transplanted successfully to the site demonstrates that relocation is a viable mitigation measure. The EA will note this fact and commit to their relocation should the proposed project be implemented.

- (3) Comment. *Construction noise and dust will severely disrupt cultural and educational activities in the Garden (4.4.1, 4.12).*

Response. Since restoration of *Kapapa Lo'i* began in the early 1980's, a tremendous amount of construction activity has taken place on adjacent land, including fill associated with the parking lot immediately adjacent to the *lo'i*. While this has at times undoubtedly made the area a less pleasant place to be than would otherwise have been the case, it has not prevented the *lo'i* from becoming and remaining a center for Hawaiian cultural activities. In this regard, it is worth noting that the *lo'i* are in the middle of an urban setting, with significant amounts of street noise typically present during the daytime hours when construction activity would take place. The draft EA noted potential construction noise effects in Section 4.4.1, but did not specifically mention the *lo'i* because the kinds of activities that take place there were thought to be less noise-sensitive than the residential uses in the faculty apartments and the dormitories. However, in response to your letter, mention of possible temporary disruption of activities due to construction noise (primarily during the relatively short site preparation phase of the project) will be added to the EA.

- (4) Comment. *Wastewater connection for the building to the sewer line stub will require a long trench, in excess of 30 feet (30') deep, to run across the Garden where 'auwai, lo'i, and established plantings currently exist. This will cause permanent and irreparable damage to those specimens, destroy the hand-crafted cultivation structures, and cause extreme stress, discomfort and nuisance to the users of the Garden.*

Response. Your observation concerning the deep trench that you say will be needed to accommodate the sewer line from the proposed project is incorrect. The manhole itself, which provides the vertical connection between the existing sewer tunnel and the service line for the proposed project is 30 feet deep, but the lateral portion of the line that connects the site to this manhole is much shallower, varying in depth from one to five feet. Since the vertical stub-out from the sewer tunnel to the manhole has already been constructed, it is only this lateral portion that will have to be constructed as part of the proposed project. And trenching for this will have much more limited impacts than you suggested.

The project architects would have preferred a route that stayed well clear of the Garden, and they spent considerable time and effort exploring alternate routes. However, the sewer manhole location that is proposed is the only one which is allowed by the City and County Department of Public Works, which has jurisdiction in this matter. The project architects are currently investigating the feasibility of routing the lateral portion of the connector sewer *mauka* of the *auwai*. If this is possible, the pipe will be in fill, rather than a trench, and will pass through the dirt parking lot rather than the *lo'i*. If this is not feasible, it will be necessary to temporarily disrupt activities in the *lo'i* while the line is installed. A discussion of this will be inserted in Section 4.7 of the EA.

Please note that the effects of installing this line will be temporary, not "permanent and irreparable" as asserted in your letter. Valuable plant materials will be removed to a temporary location and returned to the garden or other locations within the Center after the line is completed. In view of the fact that all of the plantings in the garden have been introduced, there is no reason that this cannot be accomplished without significant adverse long-term effects.

- (5) Comment. *The presence of the proposed building along the eastern edge of the Garden will significantly impact the viewshed for cultural practitioners visiting or working in the Garden (4.11). No longer in a bowl of green, users of the Garden will see a large concrete and metal flat-topped building dominating the landscape. The purported Hawaiian design may mitigate this impact, nevertheless the Garden's viewshed should be considered. While the design theme may be exciting and provocative, we would like to note the negative visual impact of the flat-topped student services building that intrudes furthest into the Garden and will dominate the view from our perspective.*

Response. A discussion of the proposed project's potential effects on views from the Garden will be added to the EA. However, the discussion will be within the context of the appearance and function of the overall site under the control of the Hawaiian Studies Program (i.e., the *lo'i* and the building site that is the subject of the present proposal). It will also note the desire for a visual connection between the proposed Center and the *lo'i* expressed in the University's LRDP. And it will place the *lo'i* within the context of its existing neighbors, which include a 13-story dormitory building.

- (6) **Comment.** *Another visual impact (4.11) not discussed is the night time lighting. Planting and other ceremonies are conducted at night in the Garden. What type of exterior lighting is proposed, and what will be the visual impact looking from the Garden?*

Response. The current plans for the building call for lights to be provided to insure the safety and convenience of the Center's users. The fundamental purpose of the lighting will be to illuminate the lanais. No lights will shine directly onto *Kapapa Lo'i*; however, some light from internal lighting and lamps in the courtyard and auditorium is likely to be visible from the Garden. It is our understanding that nighttime activities in the *lo'i* are relatively infrequent. It is anticipated that adverse lighting effects can be mitigated by coordinating the activities in the Garden and in the Center to insure that light-sensitive activities do not take place in the Garden on nights when there is a need for outdoor lighting around the Center's buildings.

- (7) **Comment.** *Operation of the facility (4.4.2) will have a negative noise impact on cultural activities at the Garden because plans call for the air conditioning (AC) units to be located within the Garden, upwind of the primary cultural activity area. The incessant noise associated with large AC units and its negative impact on existing cultural uses in the Garden needs to be disclosed.*

Response. At the time the Draft EA was prepared, detailed information on the air conditioning units was not available. More design information concerning them is now available, and this is being used to conduct additional analyses. The focus of this additional work is to determine more completely the noise levels that can be anticipated as a result of the air conditioning and the best means of insuring that it does not interfere with activities in the Garden.

- (8) **Comment.** *Historic "remains" (4.7) as witnessed by members of our organization do exist buried below fill where much of the building will be located. Care should be taken during any subsurface excavation.*

Response. The majority of the proposed excavation will involve only the modern fill. Only a small area beneath *kua'ana* will entail excavation of older material which might contain historic remains. Your letter does not indicate the nature of the "historic remains" witnessed by members of your organization or the reasons why they did not take action to report or to prevent the burial they observed. It would be helpful if you could supply that additional information to me so that I can follow-up on the matter.

Regardless, the University will arrange for a qualified archaeologist to monitor the excavation in the area that is of concern. Should historic remains be encountered, these will be documented and appropriate mitigation measures taken.

- (9) **Comment.** *Kapapa Lo'i 'O Kanewai is not a "historic remain" but is rather a living historic and cultural site, whose 'auwai irrigation system has been in nearly continuous use by generations of taro cultivators for more than 500 years. The area has gained new significance in the last 10 years as a pu'uhonua or refuge for plants, people, and things Hawaiian. It is known as a spiritual, cultural, historical, educational, and environmental resource and treasure to a broad spectrum of the public. The proposed building will disrupt the spirit of the place by constructing a large AC unit and a two-story concrete building within it, destroying plant specimens, obliterating taro lo'i, and rerouting the ancient 'auwai around or under the two story building. These impacts must be addressed in the EA.*

Response. The University, the Hawaiian Studies Program, and the project architects agree that *Kapapa Lo'i* is, and should be, a refuge for things Hawaiian. They also agree that *Kapapa Lo'i* is a living cultural site and are trying to integrate the activities that currently take place in the *Lo'i* with the equally important (but functionally different) Hawaiian cultural activities that would take place in the proposed Center for Hawaiian Studies. *Ho'okahe Wai Ho'oulu 'Aina's* efforts to block the proposed building by expanding its activities onto the site slated for the building seems to be inconsistent with the founding spirit of your organization.

Your letter seems to suggest that Hawaiian Culture should be frozen in its pre-contact form. This is antithetical to the whole idea of a living culture, which is constantly evolving and progressing. As a relatively detached observer, it seems to me that a good deal of the conflict between your organization and the Hawaiian Studies Program stems from philosophical differences that cannot be resolved through the Environmental Assessment process. At the same time, I believe there is a fundamental similarity of interests that could form the basis for a productive long-term relationship between the two groups, and I hope that the two will work towards that end.

(10) **Comment.** *Mitigation measures and alternatives considered (4.14) should include a discussion of:*

- o moving the student services building out of the Garden;*
- o modifying the student services building footprint to avoid the 'auwai, lo'i, and plant collections;*
- o relocating the AC units to the parking lot side of the building or onto the roof (hidden in a pitched roof structure);*
- o alternative wastewater connection point or connection route;*
- o incorporating a pitched roof structure on the student services building to improve its visual impact;*
- o limited or visored lighting to prevent nighttime glare into the garden.*

Response. Representatives of the Hawaiian Studies Center and the architects have discussed these issues with you and other members of your organization on numerous occasions. And there has been a considerable amount of correspondence on the matter. This attempt to coordinate with you and to resolve conflicts is not mentioned in your comment.

The conclusions that have been reached with respect to these points are as follows:

- o Moving the Kua'ana Building away from the relocated 'auwai is not possible without sacrificing the courtyard, the one-story appearance of the building, or the exterior views from the building. The architects do not believe the limited benefits of relocation warrant these sacrifices.*
- o The proposed design extends into the lo'i largely as a means of preserving the small natural drain-
age way through the area. Narrowing the Kua'ana Building so that it does not extend as far in a
mauka-makai direction (and, therefore, is farther from the lo'i) would require it to extend farther in the
'Ewa direction. This is both intrusive and expensive, and is not planned for these reasons.*
- o Relocating the air conditioning units to the parking lot on the Koko Head side of the complex would
place them closer to faculty offices and academic activities. The architects believe that these are
more noise-sensitive, and far more intensively used, than the activities in the lo'i. Hence, they do not
intend to make such a change.*

Page 7
Mr. Paul Nahoia Lucas
October 15, 1991

- o The present plans already call for the air conditioning units to be located on the roof of the building, something which might not be readily apparent from the plans you reviewed. They would be surrounded by a lava rock wall that is at least 6 feet high that would hide them from view. And they would be nearly 20 feet above the nearest *lo'i*. Additional investigations of the need to further reduce noise from the units are being undertaken, and such mitigation measures will be incorporated in the project if results of these studies show that they would be both beneficial and cost-effective.
- o There is no flexibility with respect to the point at which the complex will connect to the wastewater collection system. The only manhole was installed when the sewer tunnel was constructed, and it is not possible to relocate it at this time. Minor adjustments in the routing of the sewer lateral are being investigated.
- o It is not clear how adding a pitched roof to the *Kua'ana Building* would reduce its visual impact. It would make it taller, one of the characteristics to which other comments in your letter appear to object. Moreover, it would be inconsistent with the overall design theme of the complex, which calls for pitched roofs only over spaces for large group activities (e.g., classrooms, auditorium, etc.). Design plans call for the building to have a lava rock exterior; this will help it blend with the surrounding environment, thereby reducing its visual impact.
- o Lighting will be limited and visored as you suggested.

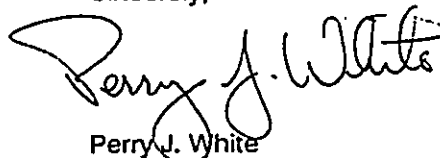
Conclusion

Several additions are being made to the Environmental Assessment in response to the your comments. However, for reasons given in the EA and in our responses above, it does not appear that the proposed project would have significant adverse effects on the environment. Thus, a "negative declaration" rather than preparation of an environmental impact statement appears to be justified.

The administrators of the Center for Hawaiian Studies share your concern for *Kapapa Lo'i*. At the same time, they wish to emphasize that responsibility for the *lo'i* lies with Hawaiian Studies, not with Ho'okahe Wai Ho'oulu 'Aina, and that their decisions with respect to the land makai of Dole Street for which they are responsible will be directed towards maximizing the overall benefits to the Hawaiian Studies program, not simply to the existing activities in the *lo'i*.

If you have any further questions, please call me at 521-5361.

Sincerely,



Perry J. White
Director of Planning

Attachments

(1) Chapter 5 -- Landscape Design Criteria

cc: Office of Environmental Quality Control
Haunani Trask, University of Hawaii Center for Hawaiian Studies
Dwight Kauahikaua, Kauahikaua & Chun

ATTACHMENT 1

CHAPTER 5.0 LANDSCAPE DESIGN CRITERIA
CENTER FOR HAWAIIAN STUDIES CONCEPT DEVELOPMENT REPORT

The Landscape Design uses plants indigenous to Hawai'i or those introduced through Polynesian Settlement.

Although the site is small, existing conditions demand different plant materials around the Center. The architectural design of each exterior elevation will be complemented by specially selected Hawaiian plantings.

Building frontage facing Kapapa Lo'i will emphasize Hawaiian food crops. Because the existing taro patches will remain the major landscape effort will be minor efforts to blend the Center with the Garden. The existing water seep will be edged with taro plants.

The Dole Street frontage will require planting that does not upset the scale of the Center. Monkeypod trees proposed by the LRDP are not desirable because these large forms would rival the high roofs. Instead the street frontage will emphasize Hawaiian dry land plants. A grove of native wiliwili (*Erythrina sandwicensis*) will be planted outside the Kua'ana Student Services Building and the Dole Street road shoulder. The dry forest is the most endangered and unappreciated ecosystem in Hawai'i today.

The parking lot frontage will have a coconut grove and lawn. This will provide the proper setting for the protocol entrance. The palms will be arranged in traditional staggered rows as opposed to the modern habit of random placement. Outside the faculty office area breadfruit trees will be planted to screen the two-story mass.

The courtyard and walled garden will have milo trees planted. With heart-shaped leaves, deeply furrowed bark, and sinuous branches, the milo will provide shade for these areas. The center of the courtyard will be grassed. A special soil mix will allow for heavy foot traffic and hula without damage to the lawn.

The Manoa Stream bank will be planted with a kukui grove to screen the two-story mass, to provide shade, and to evoke the shady streams of upland Hawai'i. Ti leaf and kukui plantings were traditionally equated with resting places.

Hawaiian shrubs and groundcover such as laua'e fern appropriate to the setting will be used as mass planting and underplanting. A very limited amount of other underplantings will be required because Hawaiian plants are not particularly effective at suppressing weed growth. Grasses planted as lawns are considered 'culturally neutral' plant material.

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APPENDIX A
RESULTS OF AIR-CONDITIONING PLANT NOISE STUDY

Y. Ebisu & Associates
Acoustical and Electronic Engineers

1126 12th Avenue
Room 305
Honolulu, Hawaii 96816
(808) 735-1634

YEA Job #29.060
October 23, 1991

Kauahikaua & Chun
Architects
Kawaiahao Plaza Hale Mauka
567 South King Street, Suite 108
Honolulu, Hawaii 96813

Attention: Mr. Dwight Pauahi Kauahikaua, AIA

Subject: Results of Air Conditioning Plant Noise Study
Center for Hawaiian Studies, University of Hawaii,
Manoa Campus

Dear Mr. Kauahikaua:

Existing Background Ambient Noise Levels: Noise measurements were obtained on Saturday, October 19, 1991 at the site of the Center for Hawaiian Studies which is shown in ENCLOSURE 1. The purpose of these noise measurements were to determine the existing background ambient noise levels on the grounds of the center and at the adjacent faculty housing units which may be impacted by noise from the planned central air conditioning equipment. Noise measurements at Locations #1 (Kapapa Lo'i), #10 (Halau), #6 (Auditorium), and "A" (Faculty Unit A) were obtained during the early morning period from 6:48 to 7:33 AM. Additional evening measurements between 7:03 to 7:22 PM were obtained at Locations #6 and "A." It was not possible to obtain background ambient noise levels from the third floor apartments of Faculty Unit A, but the ground level ambient noise measurements at Location "A" were considered to be representative or slightly less than those experienced at the upper floor apartments. Nighttime measurements of background ambient noise were also obtained at Location "A" between 10:25 and 10:37 PM.

Histograms of the A-Weighted sound levels for each measurement period at the locations of interest are shown in ENCLOSURES 2 thru 8. Also noted with these histograms are the Lmax, Leq, L10, and Lmin values recorded. Lmax represents the maximum noise level recorded during the measurement period, Leq represents the average level, Lmin represents the minimum noise level recorded, and L10 represents the noise level which was exceeded for 10 percent of the time.

Background ambient noise levels at Locations #1 and "A" were controlled by motor vehicle traffic on Dole Street. At Location

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#6, water noise from Manoa Stream was the dominant noise source. At Location #10, Manoa Stream and traffic on Dole Street were the dominant noise sources. Due to recent rains, Manoa Stream was probably higher than normal.

The measured minimum background ambient noise levels ranged from 44 to 51 dBA, which are considered to be moderately low. In order to minimize risks of annoyance and noise complaints about the center's central air conditioning plant, sound attenuation measures will be required to reduce plant noise levels to approximately 44 dBA or less.

Predicted Air Conditioning Equipment Noise Levels: Both A-Weighted and Octave Band predictions were made of the expected noise levels from two candidate air conditioning systems: an air cooled, packaged chiller system; and a cooling tower system with an enclosed chiller. The primary noise sources of the packaged chiller system was assumed to be two Carrier 30GT035 units, and the primary noise source of the cooling tower system was assumed to be one BAC VLF722-M unit with factory supplied inlet and discharge sound attenuators. The expected noise levels from the two candidate systems were calculated at the noise measurement locations as well as at Locations "A" and "P" (see ENCLOSURE 1). The sound attenuation benefits of a 6 FT or 10 FT high wall around the central air conditioning equipment were also calculated. The results of the calculations were compared with the Octave Band measurements of minimum and average background ambient noise levels which were obtained in conjunction with the A-Weighted results shown in ENCLOSURE 2 thru 8.

ENCLOSURE 9 compares the measured minimum and average A-Weighted background noise levels with the predicted A-Weighted sound levels from the two air conditioning systems. The sound level predictions were performed for conditions without an enclosing sound wall, with a 6 FT high sound wall enclosure, and with a 10 FT high sound wall enclosure. ENCLOSURES 10 thru 13 present the Octave Band comparisons of the background noise measurements with the predicted noise levels of the two equipment configurations with the 10 FT high sound wall enclosure. From these results, it was concluded that the cooling tower should be significantly quieter (by 13 to 14 dBA) than the air cooled, packaged chiller system. Also, use of the cooling tower and a 10 FT high enclosure will minimize risks of noise complaints associated with its operation. It will not be possible to meet the State Department of Health's daytime and nighttime noise limits of 55 and 45 dBA, respectively, if the packaged chiller system is used. This and the probable audibility of the packaged chiller units at Faculty Unit A increases the risk of potential noise problems with the packaged chiller units. The noise from the cooling tower

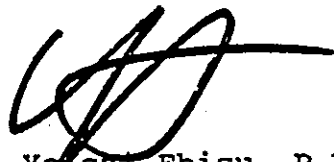
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should not be audible at the Faculty Unit A and should meet the 55 dBA daytime noise limit of the State DOH at Location "P." Meeting the nighttime limit of 45 dBA at Location "P" should not be necessary, but may be possible if a two-speed fan or jockey fan is used.

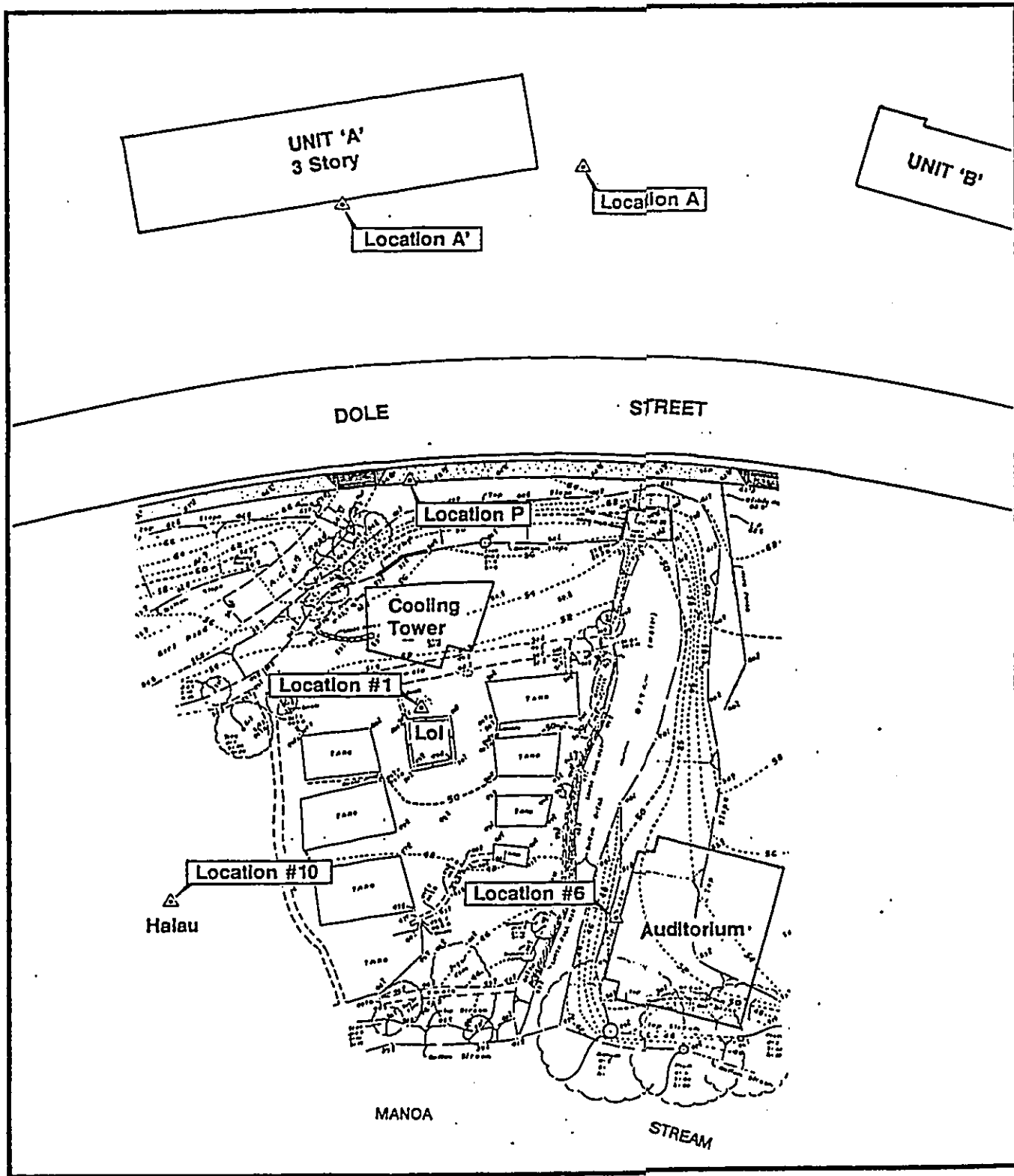
Recommendations: The results of this study indicate that the cooling tower will be clearly superior to the air cooled, packaged chiller units in respect to its noise emissions. However, the factory sound attenuator package, a 10 FT high enclosing wall, and absorptive treatment within the enclosure will be required to further reduce the cooling tower's noise levels to background ambient levels. The use of a jockey fan or variable speed main fan for nighttime use is also recommended. As soon as the plans for the air conditioning plant are available, I will review them to provide more specific recommendations for sound attenuation treatment.

Sincerely,



Yoichi Ebisu, P.E.

encl.



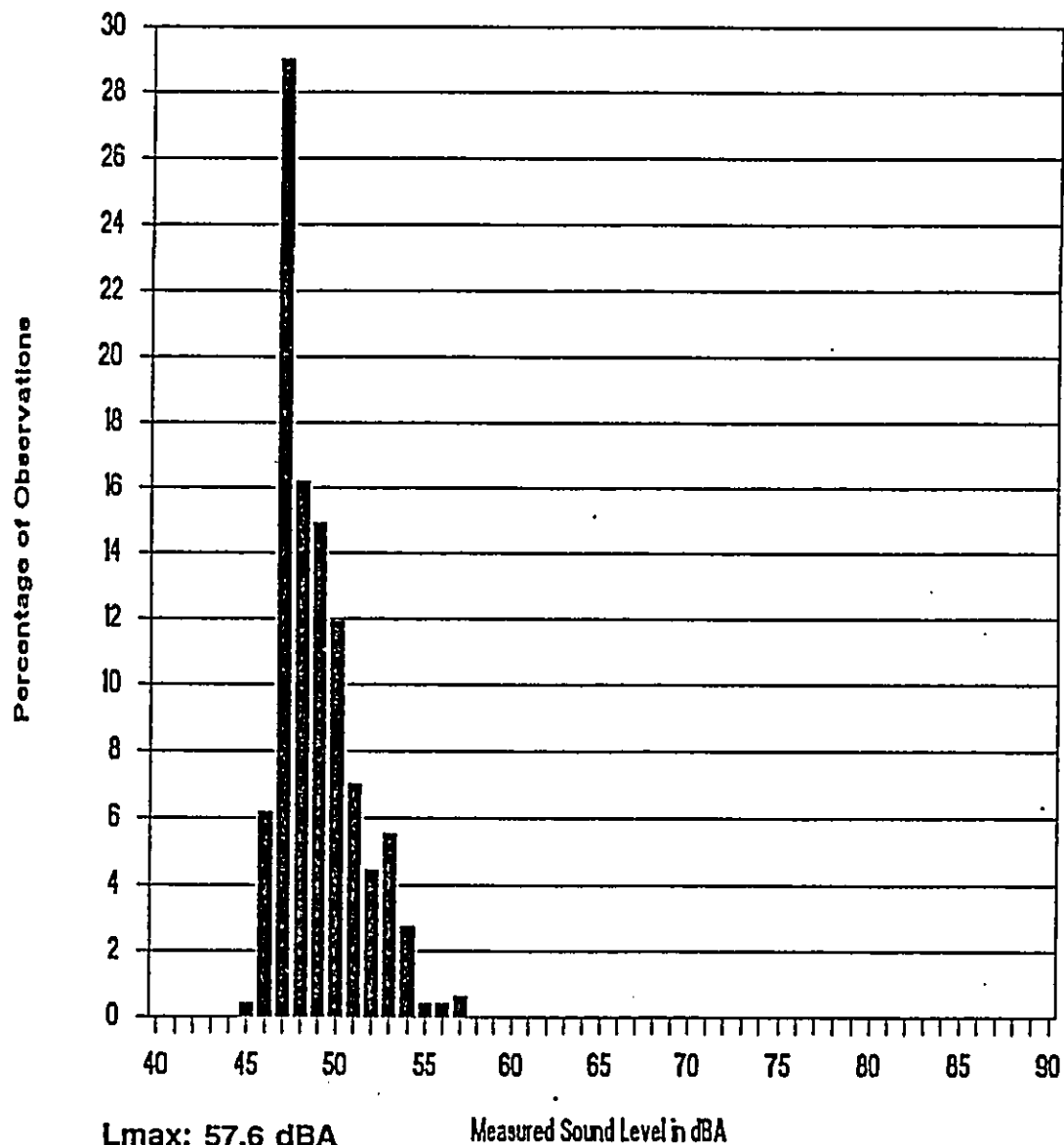
LOCATIONS OF NOISE MEASUREMENT SITES

ENCLOSURE
1

ENCLOSURE 2
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION #1
(0703 HRS TO 0712 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow

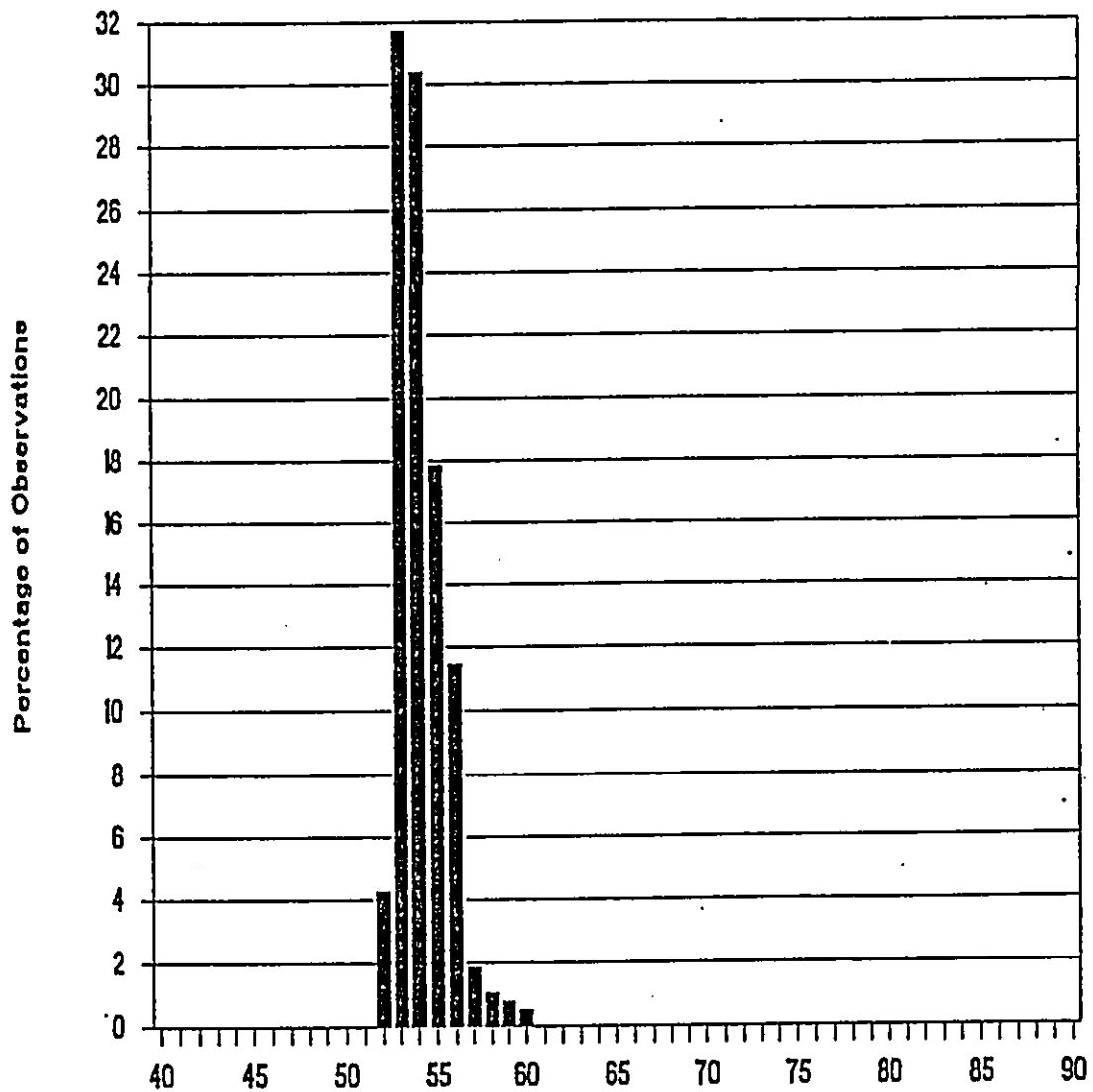


Lmax: 57.6 dBA
L10: 52.0 dBA
Leq: 49.7 dBA
Lmin: 45.3 dBA

ENCLOSURE 3
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION #6
(0726 HRS TO 0733 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow



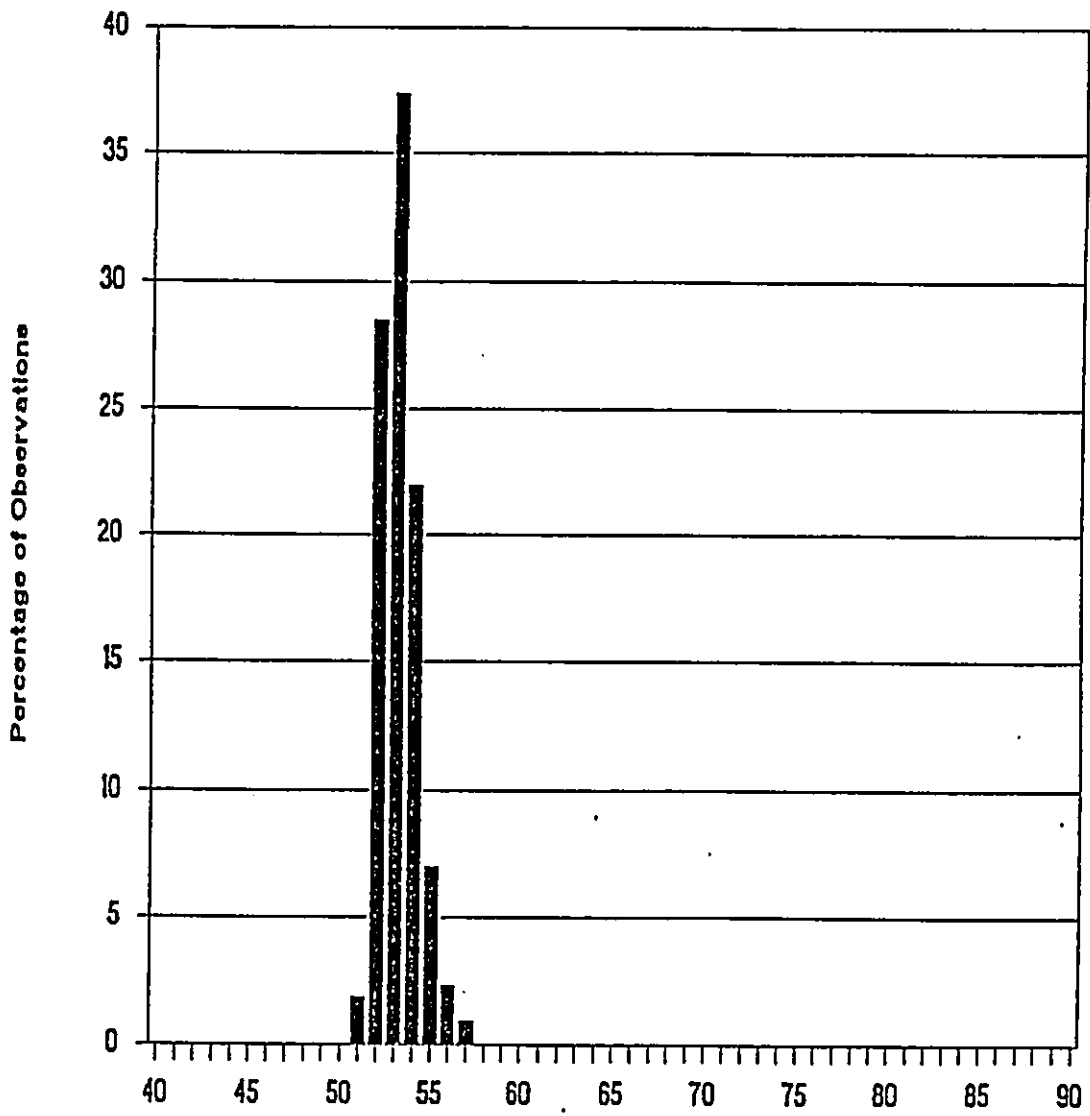
Lmax: 60.4 dBA
L10: 56.0 dBA
Leq: 54.5 dBA
Lmin: 52.2 dBA

Measured Sound Level in dBA

ENCLOSURE 4
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION #6
(1903 HRS TO 1908 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow



Lmax: 57.0 dBA

L10: 55.0 dBA

Leq: 53.4 dBA

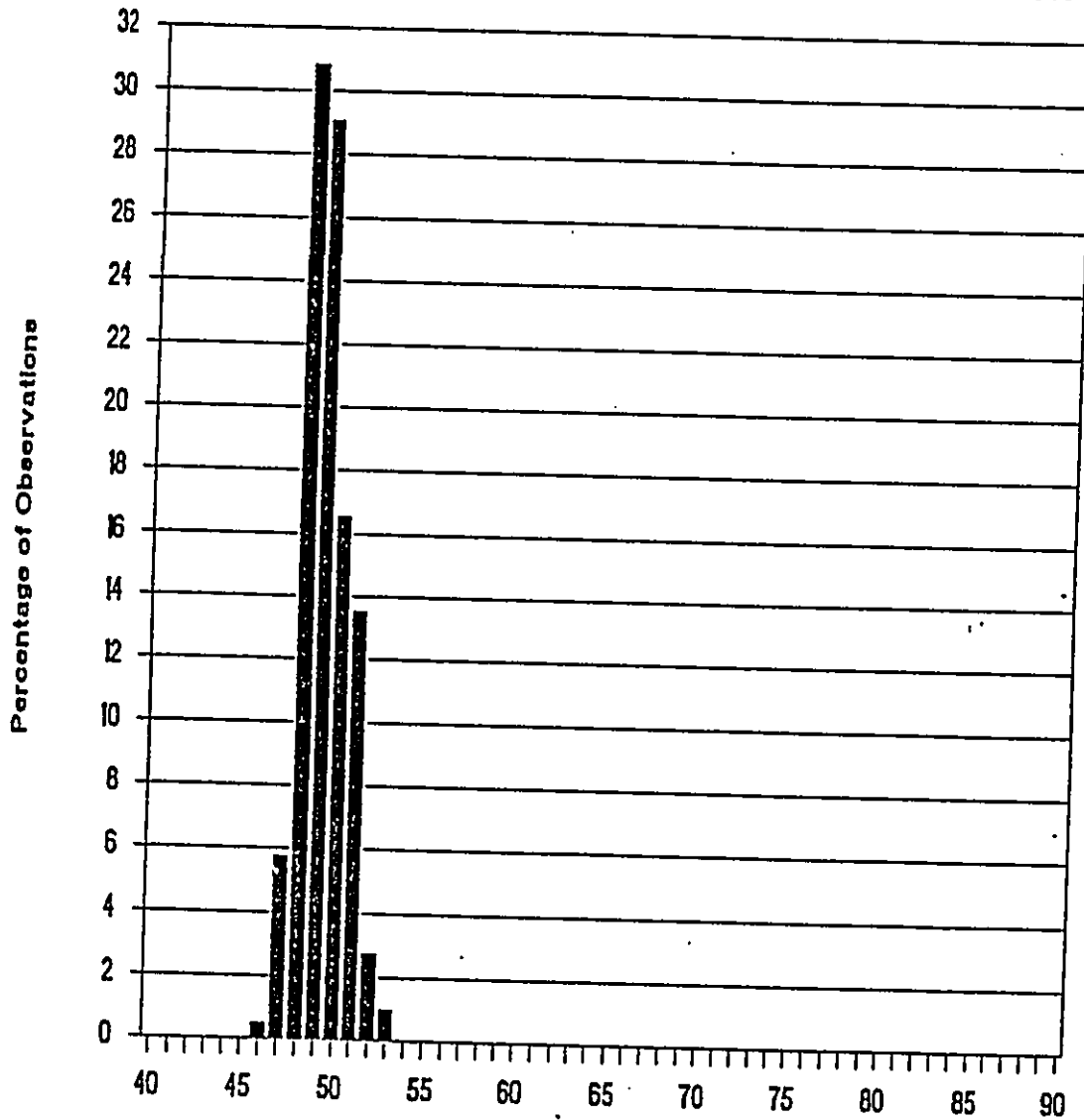
Lmin: 51.6 dBA

Measured Sound Level in dBA

ENCLOSURE 5
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION #10
(0648 HRS TO 0657 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow



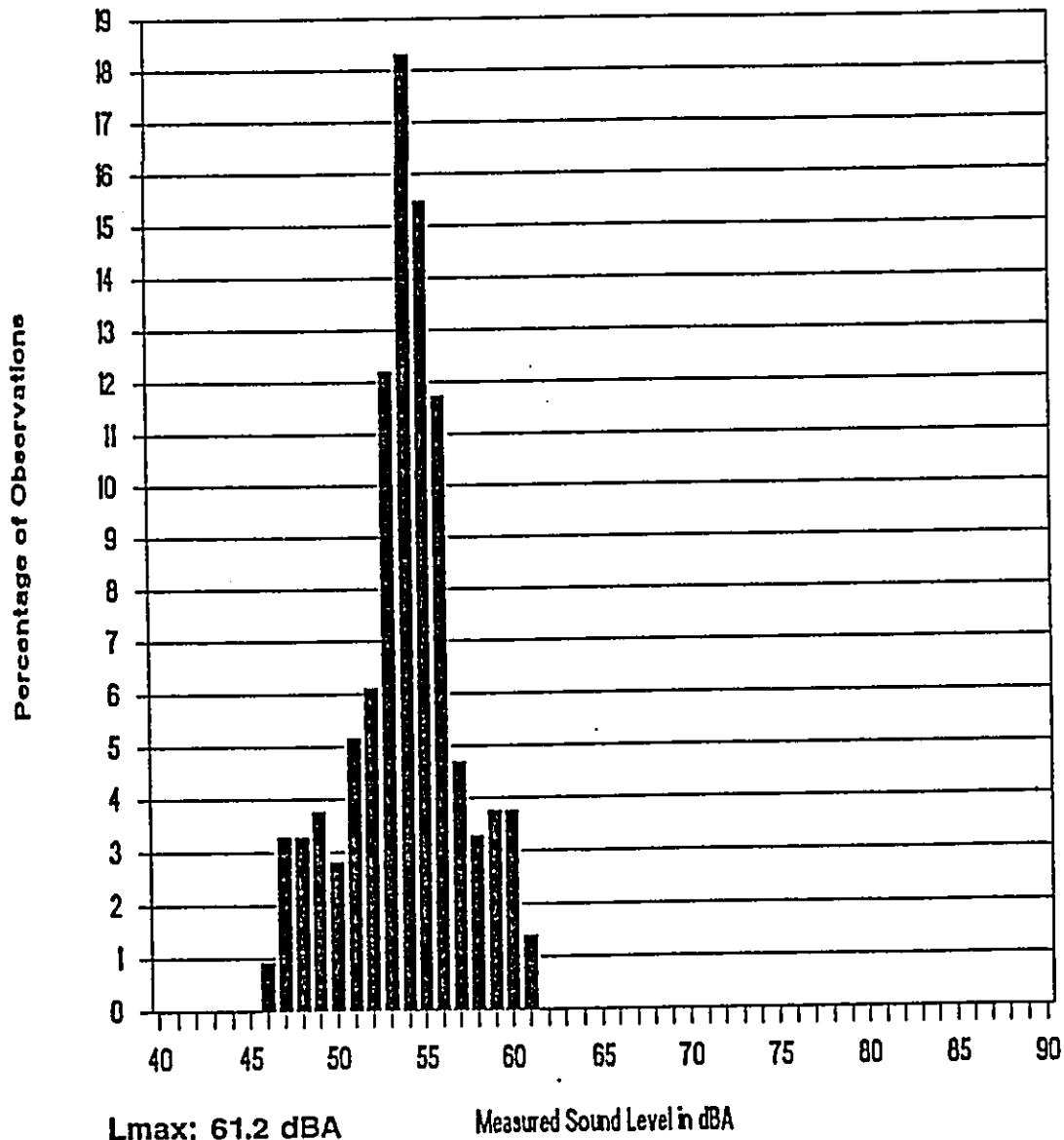
Lmax: 53.2 dBA
L10: 51.0 dBA
Leq: 49.5 dBA
Lmin: 46.8 dBA

Measured Sound Level in dBA

ENCLOSURE 6
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION 'A'
(0738 HRS TO 0742 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow

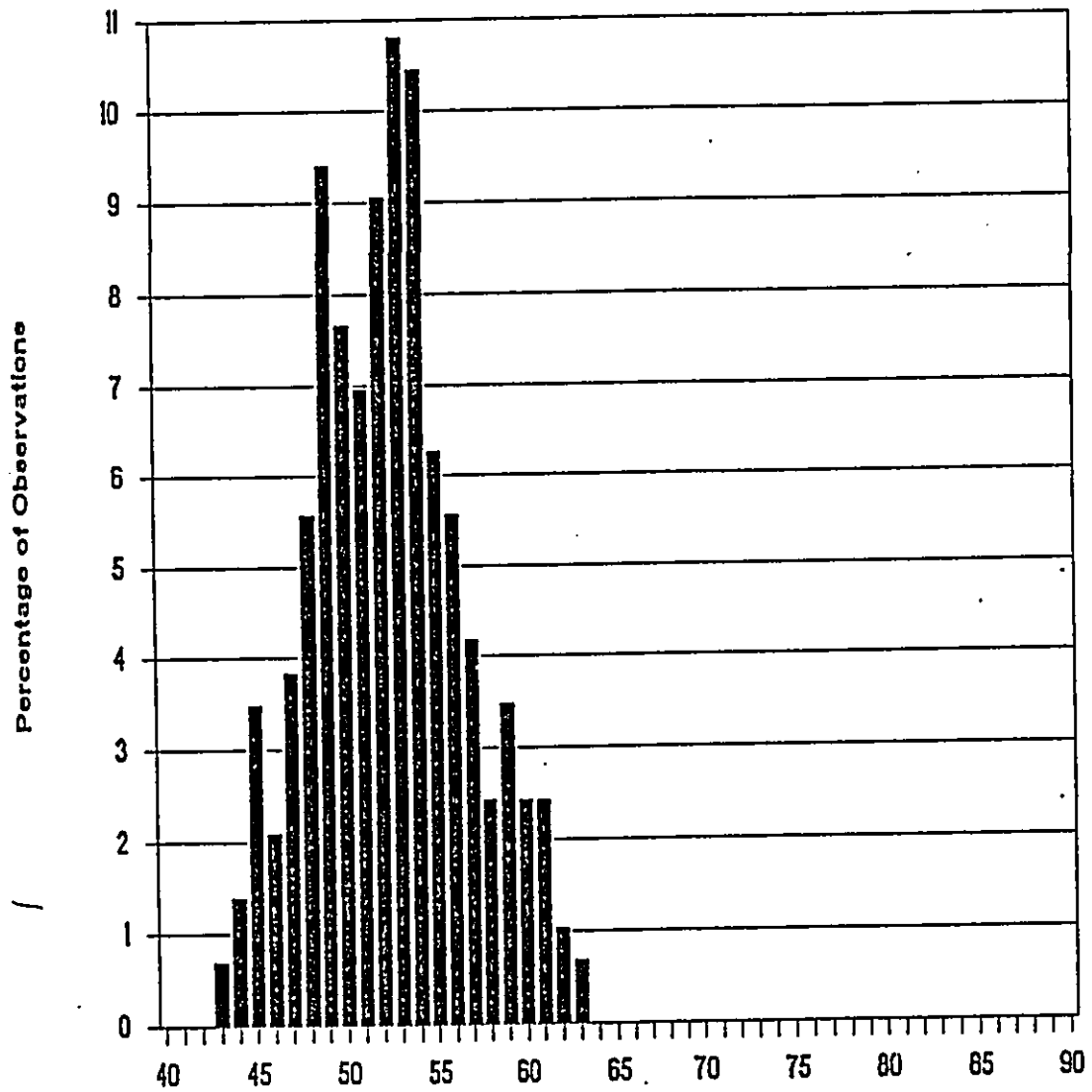


Lmax: 61.2 dBA
L10: 58.0 dBA
Leq: 54.9 dBA
Lmin: 46.0 dBA

ENCLOSURE 7
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION 'A'
(1915 HRS TO 1922 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow



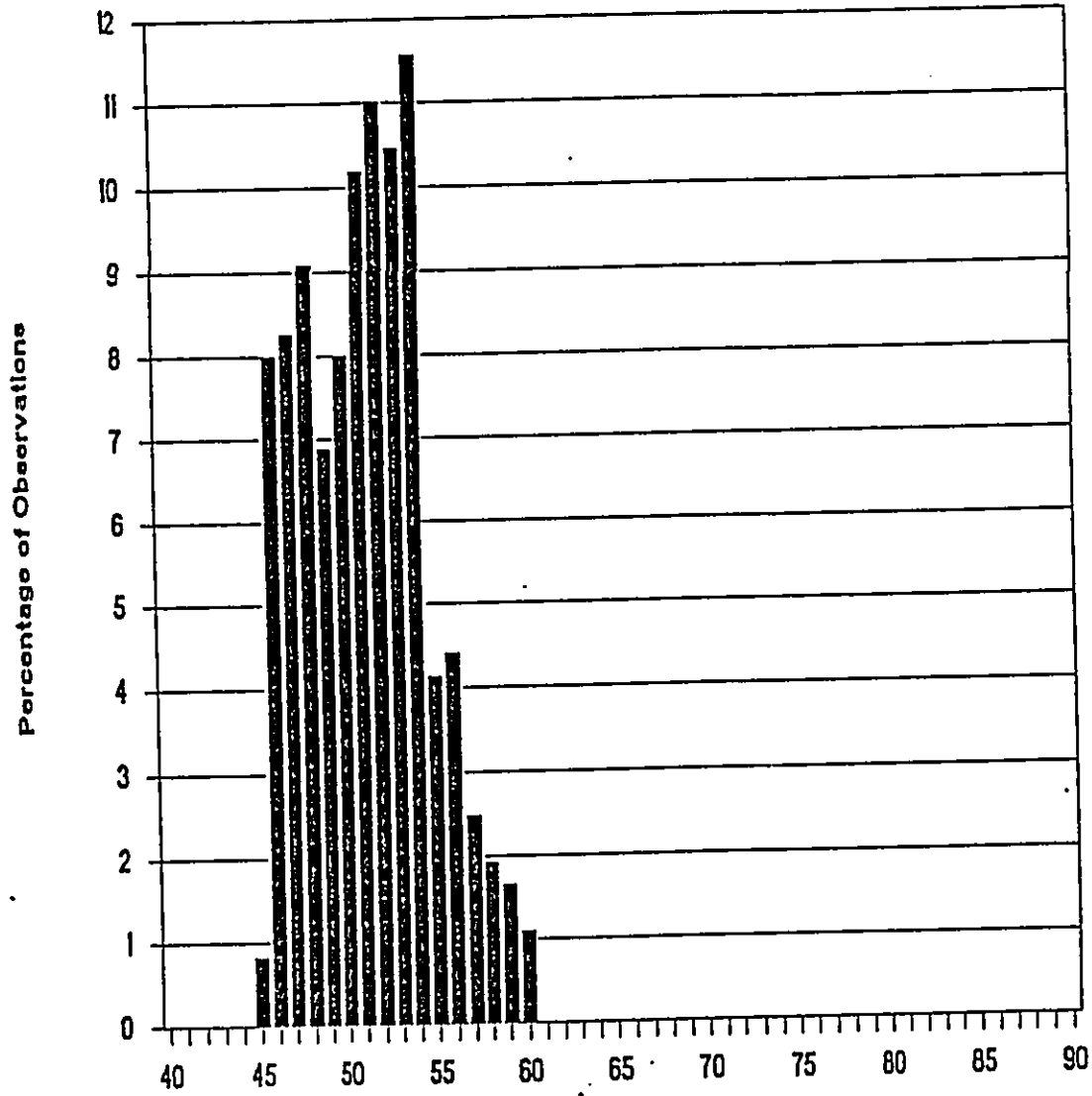
Lmax: 63.7 dBA
L10: 59.0 dBA
Leq: 54.1 dBA
Lmin: 43.7 dBA

Measured Sound Level in dBA

ENCLOSURE 8
HISTOGRAM OF A-WEIGHTED SOUND LEVELS
AT LOCATION 'A'
(2225 HRS TO 2237 HRS)

DATE: October 19, 1991

METER RESPONSE: Slow



Lmax: 60.9 dBA
L10: 56.0 dBA
Leq: 52.5 dBA
Lmin: 45.1 dBA

Measured Sound Level in dBA

ENCLOSURE 9

SUMMARY OF BACKGROUND AND EQUIPMENT A-WEIGHTED NOISE LEVELS
VS. VARIOUS WALL HEIGHTS

LOCATION	BACKGROUND NOISE		AIR COOLED COND. **WALL HEIGHT**			COOLING TOWER **WALL HEIGHT**		
	Lmin	Leq	0'	6'	10'	0'	6'	10'
SITE #1	45 dBA	50 dBA	72	61	55*	58	55	46*
SITE #6	51 dBA	53 dBA	59	53	46*	46	43	39*
SITE #10	47 dBA	50 dBA	59	51	45*	45	42	39*
SITE A'	44 dBA	53 dBA	57	57	51*	44	44	44*
SITE P	--	--	68	68	60*	54	54	51*

*All values represent equipment noise levels in dBA.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

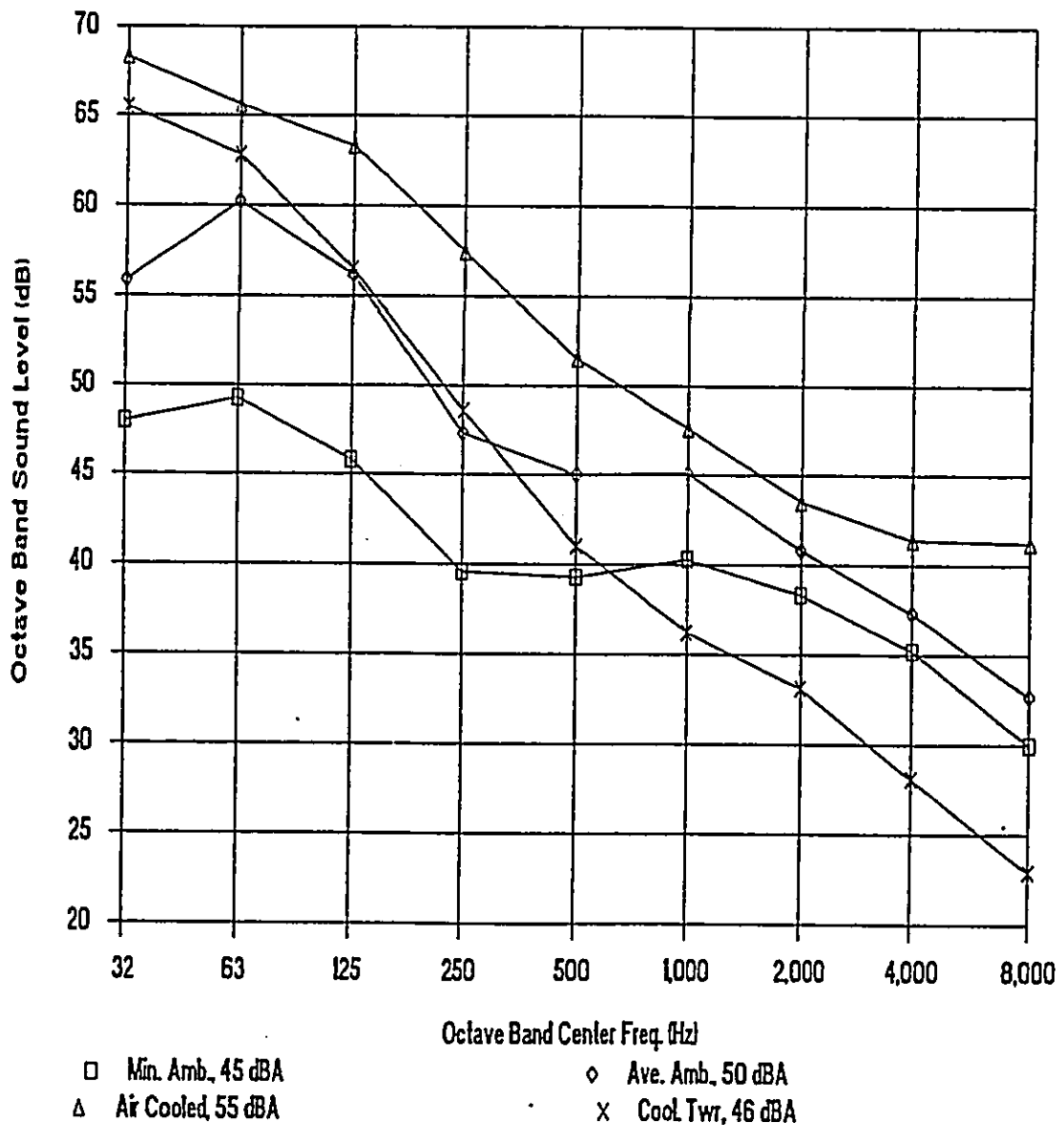
ENCLOSURE 9

SUMMARY OF BACKGROUND AND EQUIPMENT A-WEIGHTED NOISE LEVELS
VS. VARIOUS WALL HEIGHTS

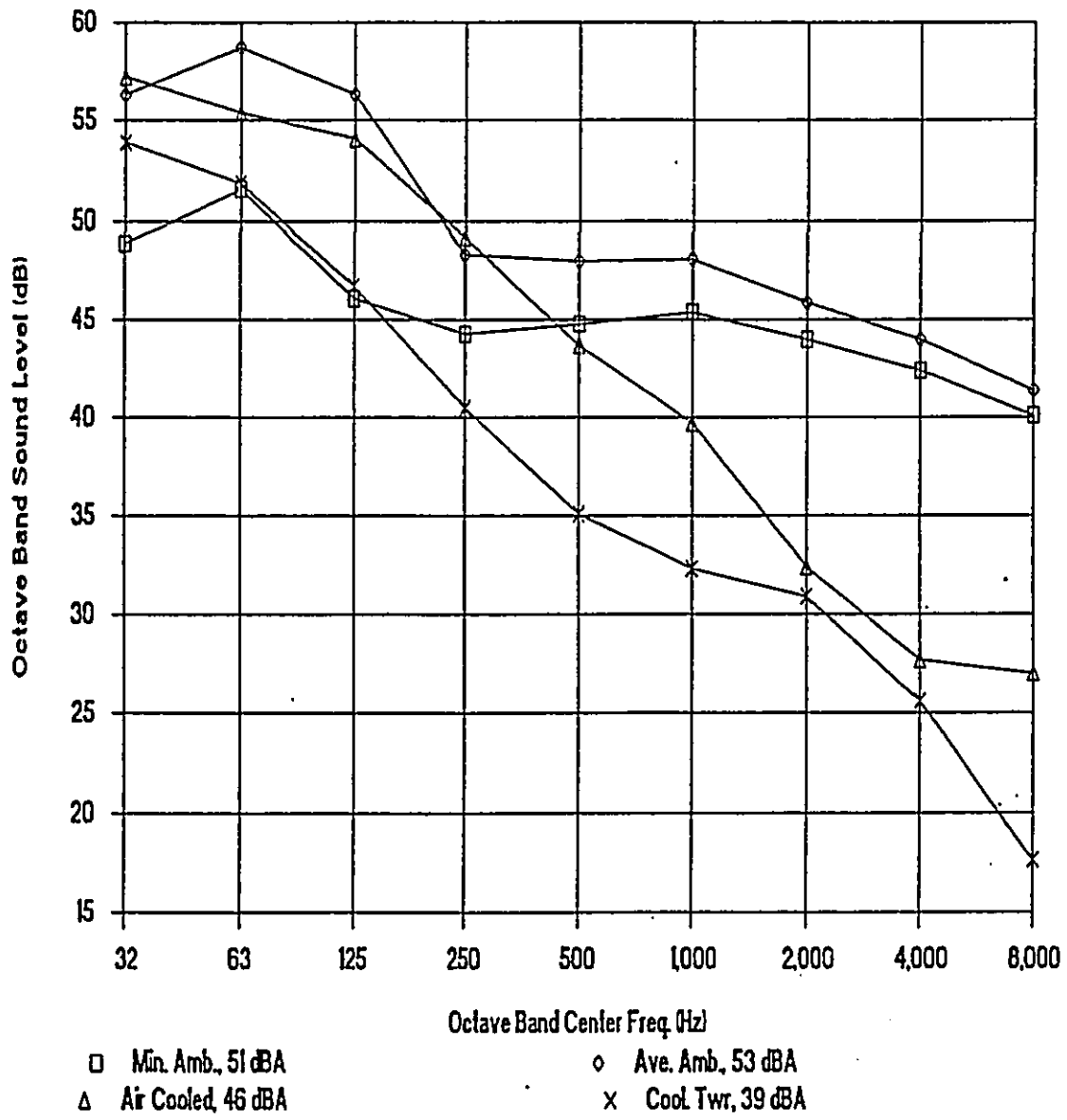
LOCATION	BACKGROUND NOISE		AIR COOLED COND. **WALL HEIGHT**			COOLING TOWER **WALL HEIGHT**		
	Lmin	Leq	0'	6'	10'	0'	6'	10'
SITE #1	45 dBA	50 dBA	72	61	55*	58	55	46*
SITE #6	51 dBA	53 dBA	59	53	46*	46	43	39*
SITE #10	47 dBA	50 dBA	59	51	45*	45	42	39*
SITE A'	44 dBA	53 dBA	57	57	51*	44	44	44*
SITE P	--	--	68	68	60*	54	54	51*

*All values represent equipment noise levels in dBA.

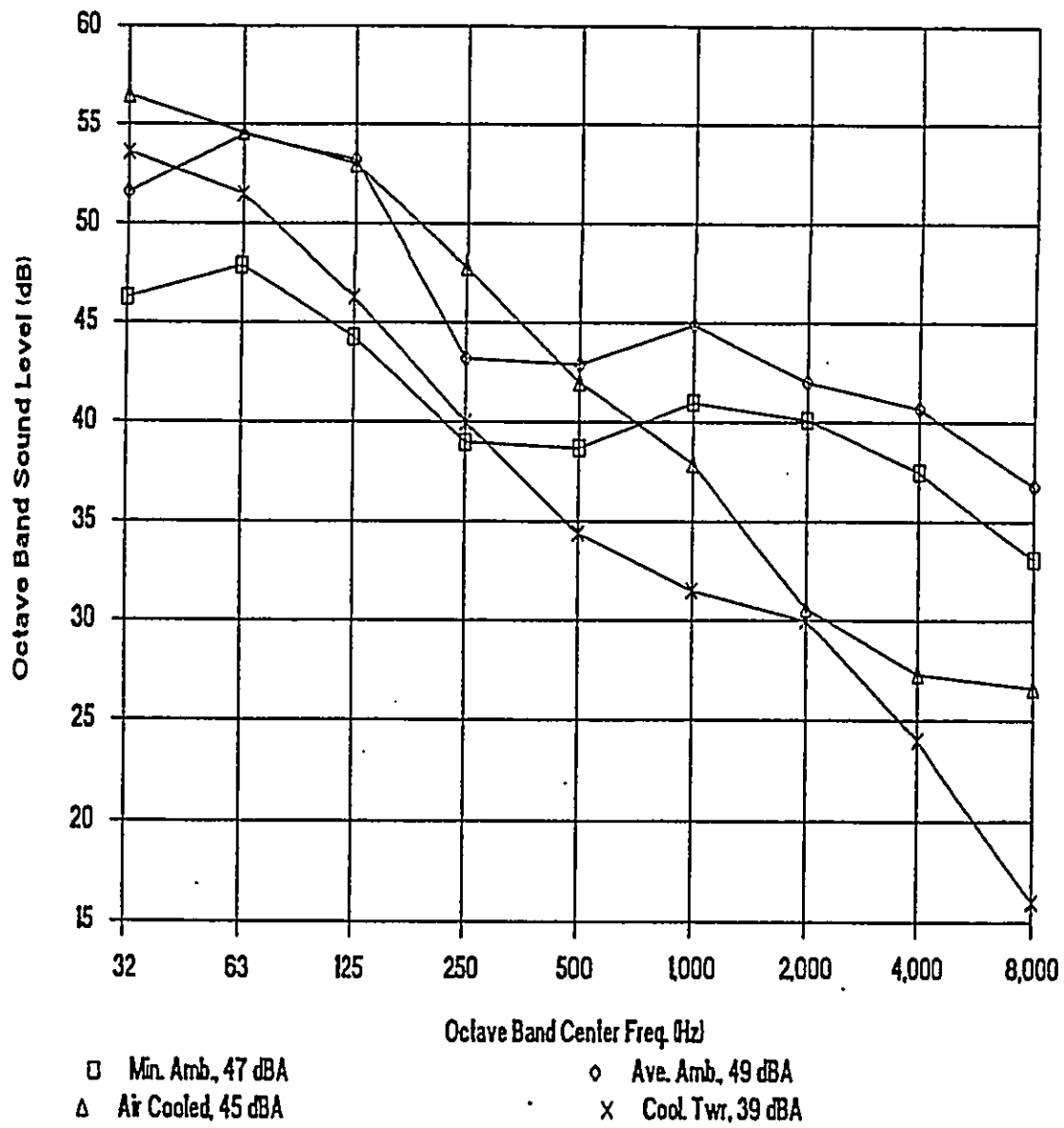
ENCLOSURE 10
SOUND LEVEL MEASUREMENTS & PREDICTIONS
LOI LOCATION #1 WITH 10 FT WALL



ENCLOSURE 11
SOUND LEVEL MEASUREMENTS & PREDICTIONS
AUDITORIUM LOCATION #6 WITH 10 FT WALL



ENCLOSURE 12
SOUND LEVEL MEASUREMENTS & PREDICTIONS
HALAU LOCATION #10 WITH 10 FT WALL



ENCLOSURE 13
SOUND LEVEL MEASUREMENTS & PREDICTIONS
FACULTY HOUSING UNIT 'A' WITH 10 FT WALL

