BENJAMIN J. CAYETANO
GOVERNOR

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

ROBERT P. TAKUSHI
COMPTROLLER

'94 DEC 20

LETTER NO. D-1052.4

DEC 19 1994

Mr. James Ikeda, Director
Office of Environmental Quality Control
Central Pacific Plaza
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Ikeda:

SUBJECT: Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Four (4) copies of the Final Environmental Assessment for the proposed project are transmitted for publication in your OEQC Bulletin as a Negative Declaration.

If there are any questions, please have your staff contact Mike Shigetani at 586-0434.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

MS/lh
Enclosure

170

1995-01-08-MA-FEA- Maui Community Correctional Center

JAN 8 1995

FINAL
ENVIRONMENTAL IMPACT
ASSESSMENT
FOR
MAUI COMMUNITY CORRECTION CENTER
80 - BED WORK FURLOUGH CENTER
WAILUKU, MAUI, HAWAII

DAGS JOB NO. 15-27-6230

TMK: 3-8-46: 6

PREPARED BY

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

DIVISION OF PUBLIC WORKS

STATE OF HAWAII

DECEMBER 1994

FINAL

ENVIRONMENTAL IMPACT

ASSESSMENT

FOR

MAUI COMMUNITY CORRECTION CENTER

80 - BED WORK FURLOUGH CENTER

WAILUKU, MAUI, HAWAII

DAGS JOB NO. 15-27-6230

TMK: 3-8-46: 6

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STATE OF HAWAII

DECEMBER 1994

TABLE OF CONTENTS

PROJECT DESCRIPTION:

The Department of Public Safety proposes to construct a single-story wood structure to house 80 inmates as part of the community based work furlough program. It is to be located on the former County rifle range which was conveyed to the State as part of a land exchange agreement.

This project will support a reintegration program for Maui County residents attempting to re-enter their community after spending a long term in the State's prison system.

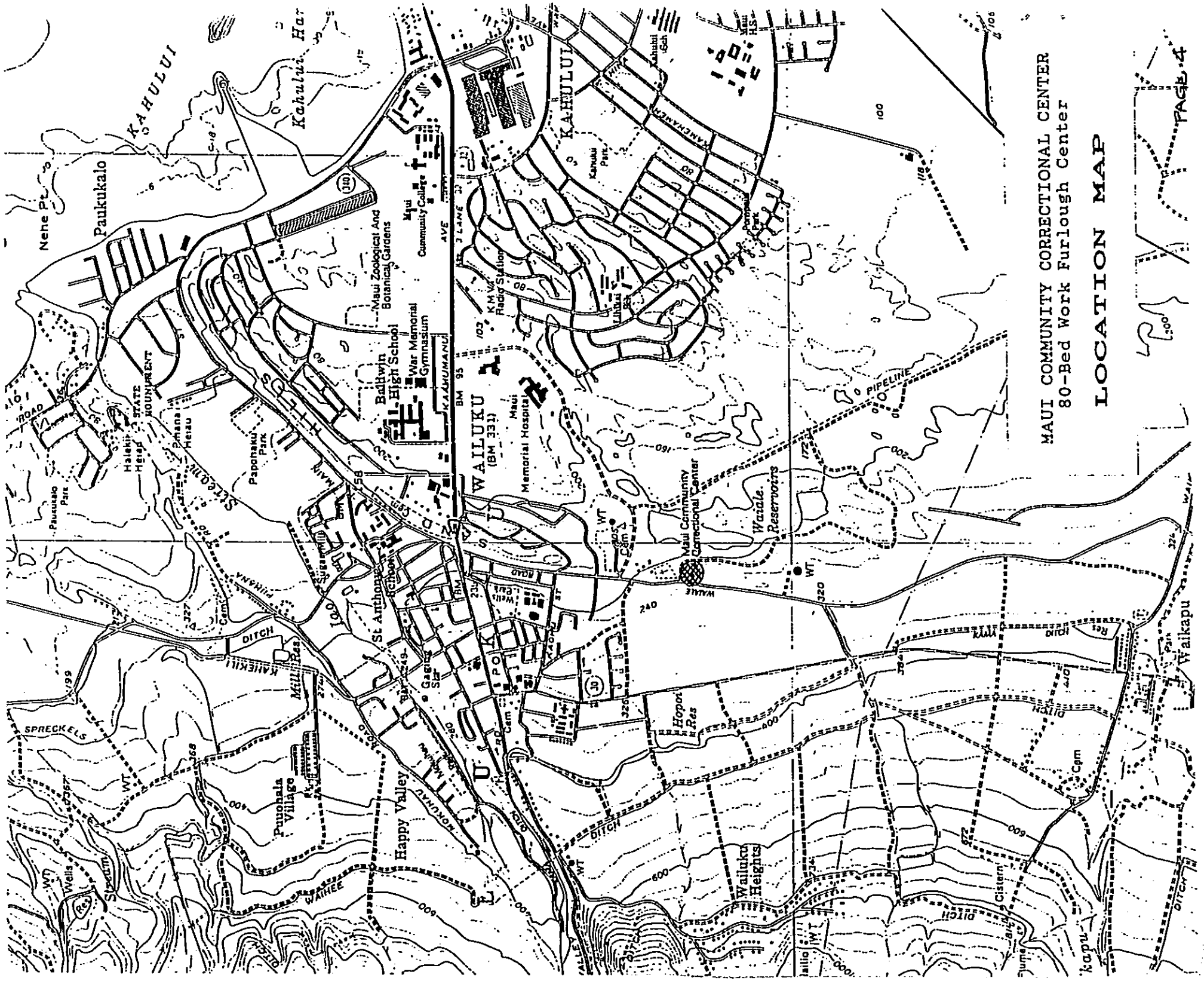
It is hoped that the facility will help alleviate the over-crowding in the prison system.

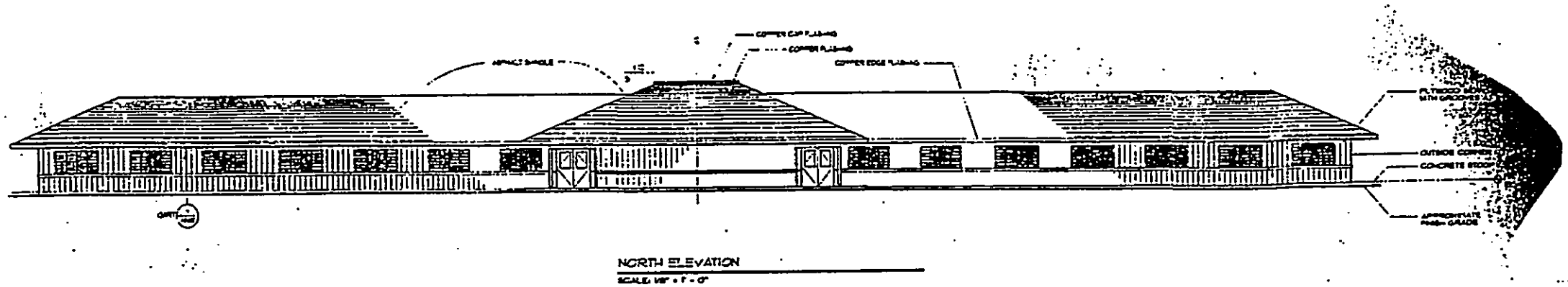
The facility will have sleeping/studying accommodations, a community-type restroom, a serving kitchen and a small recreation area. A 16-feet high chain link fence will be installed at the rear and along the side boundary adjacent to the County's "homeless" village.

Fire protection and emergency power will also be provided.

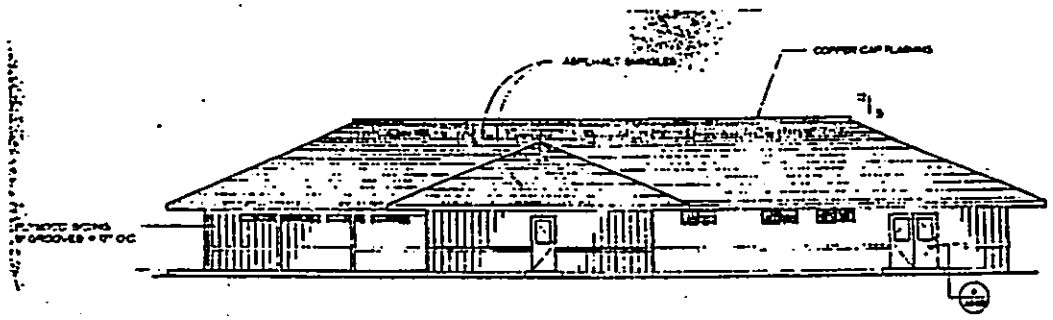
LOCATION MAP

MAUI COMMUNITY CORRECTIONAL CENTER
80-Bed Work Furlough Center

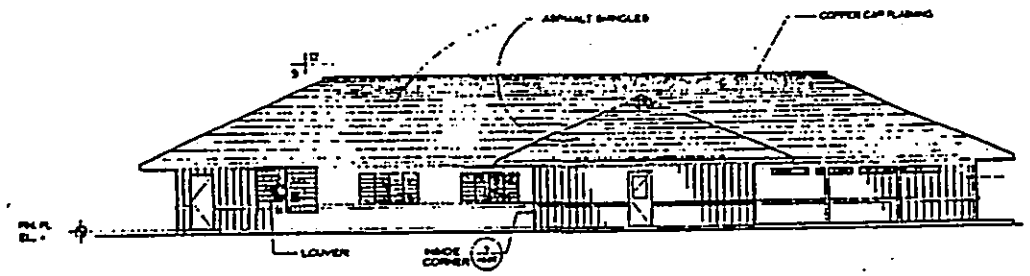




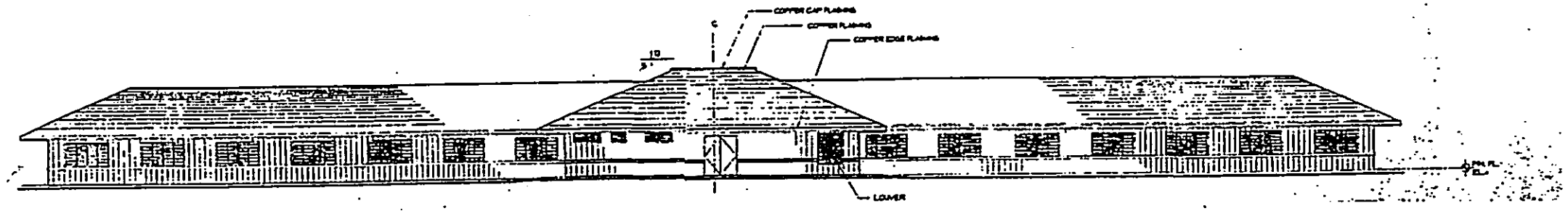
NORTH ELEVATION



WEST ELEVATION



EAST ELEVATION



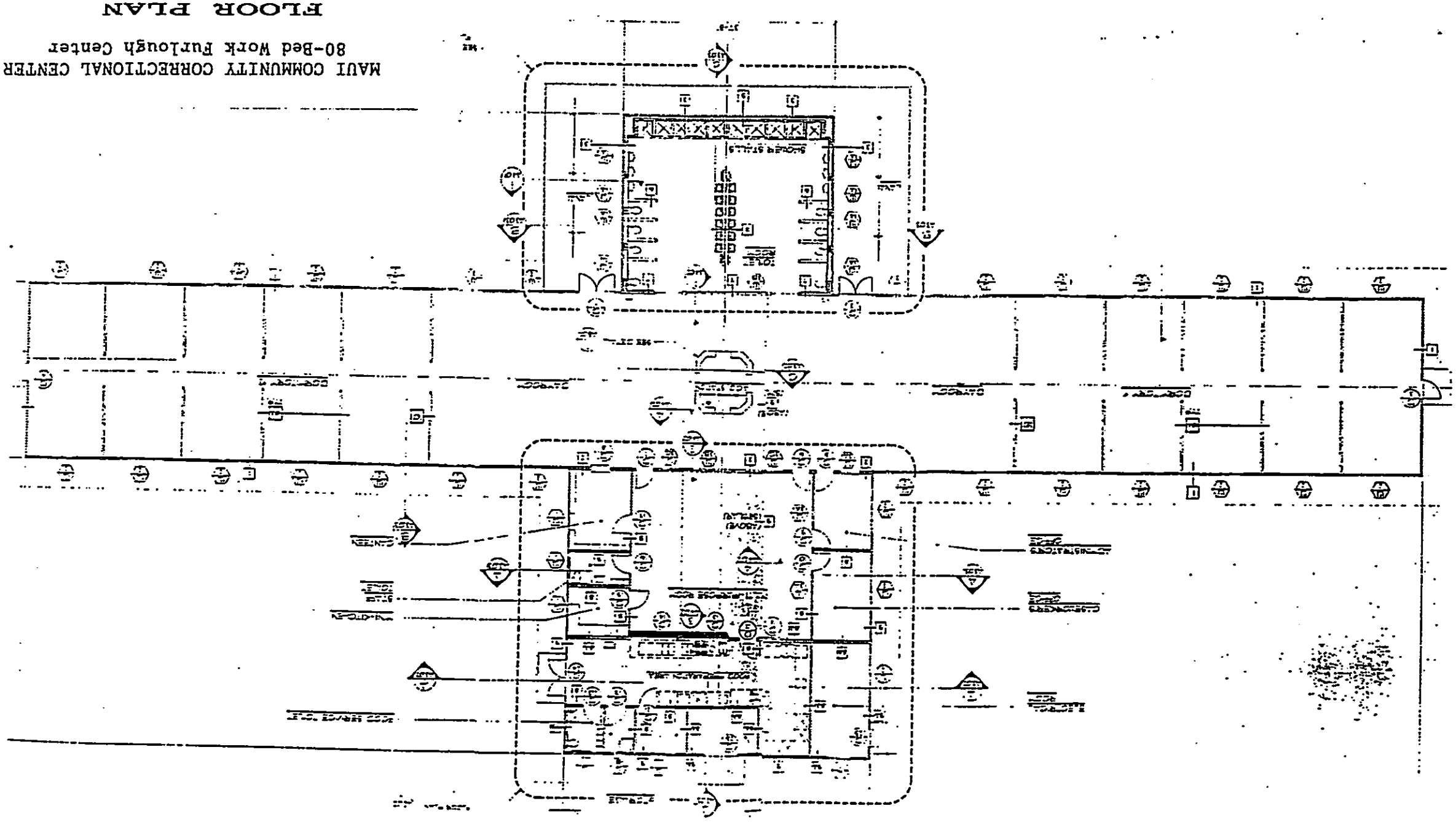
SOUTH ELEVATION

MAUI COMMUNITY CORRECTIONAL CENTER
80-Bed Work Furlough Center

ELEVATION

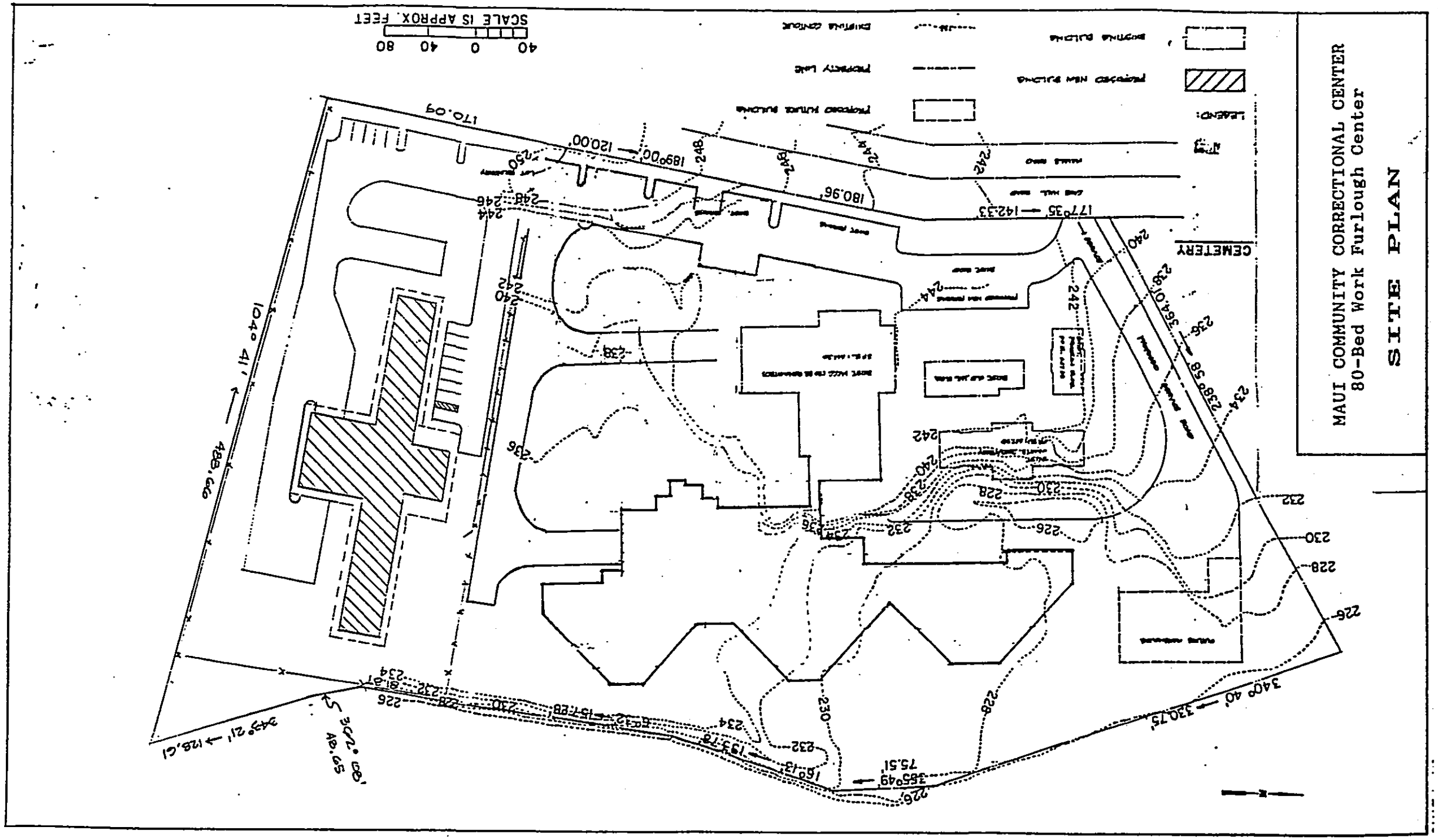
MAUI COMMUNITY CORRECTIONAL CENTER
80-Bed Work Furlough Center

FLOOR PLAN



SITE PLAN

MAUI COMMUNITY CORRECTIONAL CENTER
80-Bed Work Furlough Center



ENVIRONMENTAL SETTING:

General. The proposed facility is situated at an elevation of about 240 feet between the Maui Memorial Park Cemetery and the County's "homeless" village. The site is identified as Tax Map Key 3-8-46:Portion 6 occupying an area of approximately 2.211 acres.

Access to the site is by Waiale Road, a narrow two lane asphaltic roadway. Public use of the roadway ends just beyond the correctional facility. The balance of the roadway is restricted to use by Wailuku Sugar Company personnel.

At the easterly boundary of the property is Wailuku Sugar Company's Spreckles Ditch which drains into the Waiale Reservoirs. Water stored in these open reservoirs are used for irrigation by the sugar company.

Topography. The topography of the site is relatively flat due to previous grading by the County in developing the site into a rifle range and more recently by the State in anticipation of the proposed project.

Flora. Vegetation consists primarily of weeds and scrub grass. No significant flora was identified on the project site.

Fauna. During site visitations, only common species of birds were seen in the area: doves, barred doves, sparrows

and mynah. Other common species such as the cardinal and mijiro may pass through the area. Adjacent areas along the irrigation reservoirs may provide habitat for Hawaiian waterbirds, however, none were seen along the banks adjacent to the project site. Although not seen, other animal species that may be found in the area are rats and mongoose.

Soils. Soils at the site are classified as Iao silty clay (IaA) and Puuone sand (PZUE) by the Soil Conservation Service in their Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii. (August 1972)

Iao silty clay is found in areas of 0% to 3% slopes and at depths ranging from 0- to 60- inches from the surface. The soil produces a slow runoff and erosion is no more than slight. The Iao series consists of well drained soils on valley fill and alluvial fans. This soil type is described to be fair for roadfill and to have a moderate shrink-swell potential.

The Puuone Series soils consists of somewhat excessively drained soils on low upland areas of Maui. These soils are derived from coral and seashells. They are moderately sloping to moderately steep. Puuone soils are geographically associated with Iao and Jaucas soils.

Puuone Sand, 7 to 30 percent slopes (PZUE), is found on sandhills near the ocean. In a representative profile the surface layer is greyish-brown, calcareons sand about 20 inches thick. This is underlain by greyish-brown, cemented sand. The soil is moderately akaline in the surface layer.

Permeability is rapid above the cemented layer. Runoff is slow, and the hazard of wind erosion is moderate to severe. Shrink-swell potential is described as low.

Flood Zone. The project site is located in an area designated as Zone C on the Federal Insurance Rate Map. Zone C is defined as an area of minimal flooding.

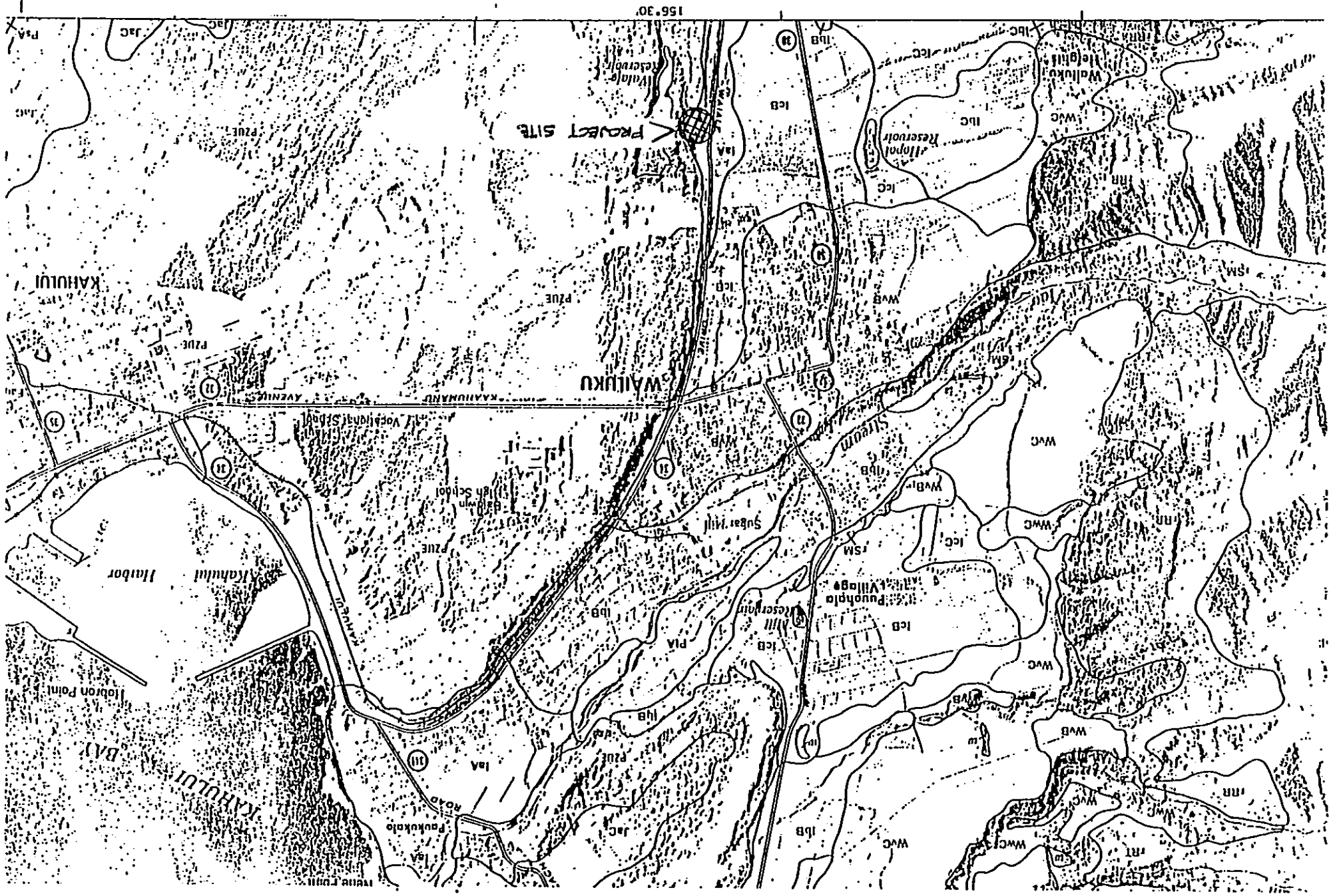
Historical. Although there are no known historical sites within the project site, the State Historic Preservation Office have documented burial sites within the general area. On the "homeless" shelter site burials were encountered during site development. Also, excavations by Maui County's Public Works Department encountered burials along Waiale Road. Based on the existance of burials within the surrounding area, the Historic Preservation Office suspects a high potential for other burial sites to be found in the area. As a precaution, an archaeologist will monitor the excavation phase of the work. Should any unforeseen archaeological or historical artifact or burial be encountered, excavation work will be temporarily stopped until a satisfactory resolution is obtained.

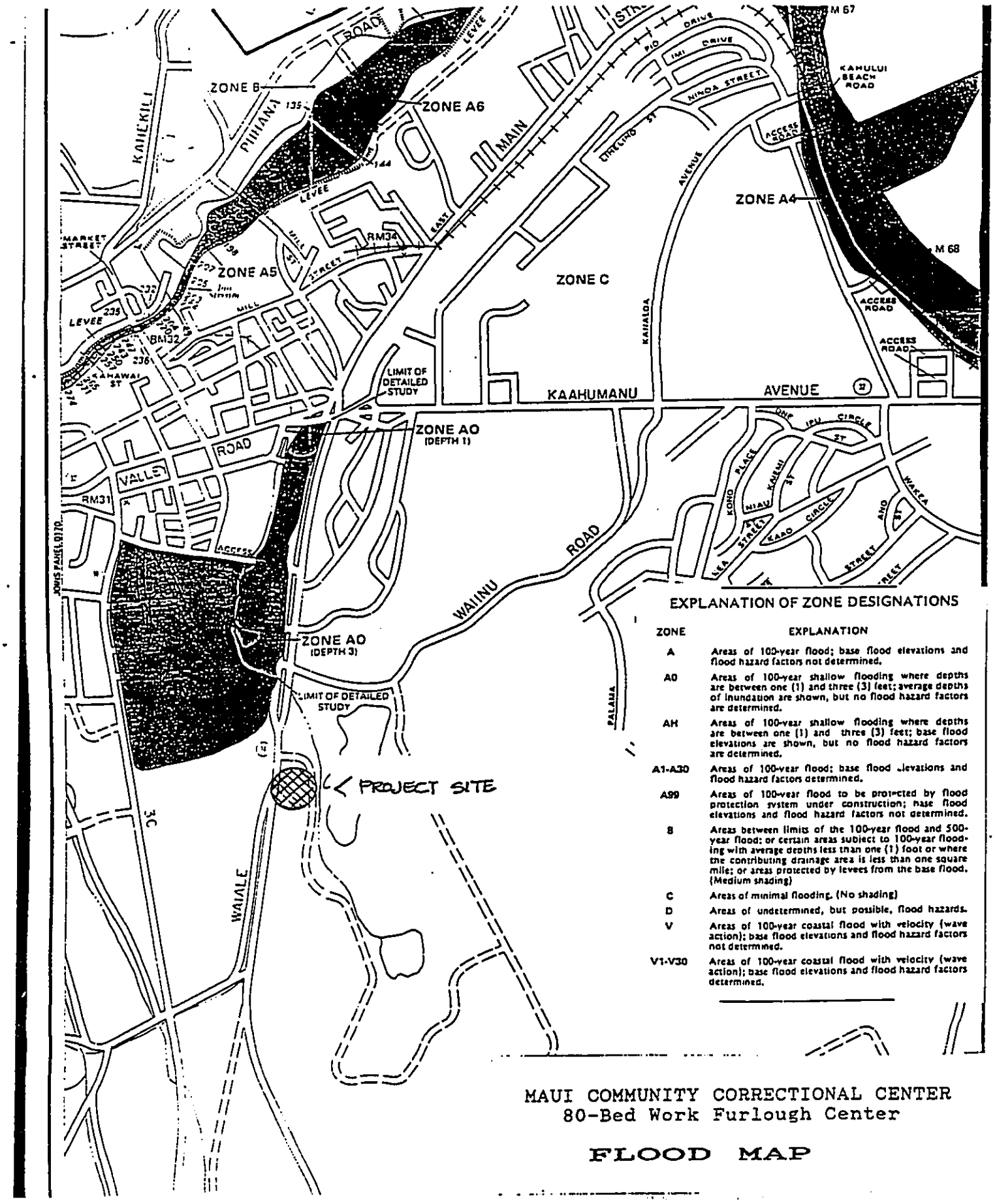
Traffic. Traffic impacts are not anticipated to be significant. Users of the roadway would be primarily personnel and visitors to the correctional facility as well as residents and visitors to the "homeless" village.

Water Quality. No significant impacts to water quality are anticipated. Wastewater will be discharged into the

MAUI COMMUNITY CORRECTIONAL CENTER
80-Bed Work Furlough Center

SOILS MAP





EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

MAUI COMMUNITY CORRECTIONAL CENTER
80-Bed Work Furlough Center

FLOOD MAP

County's sewerage system while rainwater will be by an on-site leaching field.

Social. The project is not anticipated to have a significant impact to the social environment in the area. The 80-bed facility will be an extension of the existing correctional center. Inmates to be housed in this 80-bed facility will be classified as minimum security. This classification is based on an individual's behavior and length of time remaining before probation and is considered the final phase of incarceration before being released into the community. Inmates at this facility will be participating in the department's work furlough program where they do work in the community in groups or individually.

Supervision of the individuals in the work furlough program ranges from closely observed to casually observed. Individuals in the casually observed category are able to attend community college classes or work for a business unsupervised with occassional checkups by departmental staff. However, these individuals must return to the correctional facility by a specified time each day depending upon the activity the individual is involved.

Economic. The participants in the work furlough program will contribute to the island's economy by performing work and earning wages. Although this may not have a significant economic impact, it will help make the individual a useful contributor to the island's work force upon release to probation.

PROBABLE IMPACT ON THE ENVIRONMENT

There will be a temporary increase in noise and air pollution for the duration of the construction.

Noise above the normal would comply with the noise regulations of the Department of Health, State of Hawaii. Activities generating noise above ambient levels would include site grading, hauling of materials and equipment, and general carpentry.

Air pollution levels would increase, though not significantly, from dust generated during grading operations, sawing operations, and exhaust emissions from vehicles and equipment.

No burning of construction debris will be permitted on the project site. All debris must be hauled to an approved sanitary landfill.

As the project site is located near the bottom of a knoll, the proposed building is not anticipated to significantly obstruct viewing planes from the adjacent "homeless" development.

Although the proposed building will increase surface run-off, an on-site catchment system will be constructed to retain any excess runoff above the natural conditions.

"Ka Hale Ake Ola" homeless shelter located adjacent to the project site is not anticipated to be adversely affected. The shelter is made up of 17 single story, wooden buildings. Twelve of the buildings will provide shelter for 30 family

units and one will be for singles. The other buildings will be used for providing child care, a thrift and food bank, kitchen and dining, and administration. A 16-foot, high fence will be installed along the common boundary to separate the projects.

SHORT TERM IMPACTS

The short term, construction-related, impacts will be temporary and localized. The use of the non-productive land will close future options of the use of this land until such time that the facility is no longer needed or is abandoned. However, the project's benefits to society in terms of community welfare and inmate health and safety will be enhanced and preserved with the implementation of the new 80-Bed Work Furlough Center. These intangible benefits are deemed necessary and outweigh the short-term impacts and temporary closure of land to future uses.

MITIGATIVE MEASURES

The proposed project is not anticipated to have any adverse environmental impacts other than those associated with the construction activities. To mitigate construction impacts, the contractor will be required to comply with all applicable pollution control requirements of Federal, State, and County agencies. This applies, but not limited to, noise pollution, air pollution, and water pollution.

Should any unrecorded burial sites or historical sites be encountered, work in the immediate area will be temporarily stopped. The State Historic Preservation Office will be notified and if applicable, the Maui/Lanai Islands Burial Council. No work will recommence until a satisfactory resolution, acceptable to all affected agencies and/or organizations is obtained.

ALTERNATIVES:

NO ACTION. This action will keep the "status quo". The prison system will remain over-crowded and not comply with the conditions issued by the District Court in response to a suit by the American Civil Liberties Union.

ANOTHER SITE. There are no immediately available State lands that would be able to accommodate the proposed facility on Maui. The lengthy process of potential condemnation proceedings and designing the facility to fit the terrain was a factor in not considering this alternative.

SEPARATE FACILITY. Land immediately adjacent to the Maui Community Correctional Center was conveyed to the State as part of a land exchange agreement with the County of Maui. This site would allow the Department of Public Safety to concentrate the confinement of inmates at one location, permit more flexibility in use of departmental personnel, and would also provide for more bed space in the prison.

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

The project site is in an area designated as "Urban" on the State Land Use Map.

Maui County establishes policies relating to developments within the Urban zone. To implement these policies, the County has developed a General Plan which guides development on the island. The site was originally zoned M-1 (Light Industrial) and Agriculture by the County, but has recently been rezoned to Quasi Public on their Community Plan.

The site is not within any Special Management Area established by the County.

Height limitations established for the project site is a maximum height four (4) stories or 48 feet. The proposed building is not anticipated to exceed these limits.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Other than the commitment of labor and materials to construct the 80-bed facility, no cultural or natural resources surrounding the project site will be affected by the proposed action.

UNRESOLVED ISSUES

There are no known unresolved issues associated with this project.

DETERMINATION

The proposed project is not anticipated to have any adverse environmental impacts to any endangered flora and fauna, land use, surface and groundwater, air and noise pollution, scenic views, or the social/cultural heritage of the area.

An issue which will be addressed during construction is the possibility of unrecorded grave sites in the area. To mitigate this unforseen condition, the State will have an archaeologist monitor all subsurface work.

Copies of the assessment were sent to various governmental agencies and community organizations for their review and comments. Only three responses were received and are appended to this document.

Based on the comments received and environmental concerns discussed in the assessment, it has been determined that it is appropriate to file this environmental assessment as a Negative Declaration.

LIST OF APPROVALS:

1. Building Permit
   a. Sewage flow calculations
   b. Hydrology report
   c. Drainage and soil erosion report
   d. Energy Code compliance
   e. Domestic water calculations
   f. Fire Flow calculations
2. Electrical Permit
3. Plumbing Permit

LIST OF CONSULTED AGENCIES/ORGANIZATIONS

	Date Sent	Date Comment Rec'd
The Judiciary Aliiolani Hale 417 So. King Street Honolulu, Hawaii 96813	8/6/93	***
Department of Agriculture 1428 South King Street Honolulu, Hawaii 96814	8/6/93	***
State Historic Preservation Division Department of Land and Natural Resources 1151 Punchbowl Street Honolulu, Hawaii 96813	8/6/93	7/20/93 10/20/94
Department of Health Environmental Management Division 500 Ala Moana Boulevard Five Waterfront Plaza, Suite 250 Honolulu, Hawaii 96813	8/6/93	9/28/93
University of Hawaii Water Resources Research Center 2540 Dole Street, Holmes Hall 283 Honolulu, Hawaii 96822	8/6/93	***
University of Hawaii Environmental Center 2550 Campus Road, Crawford 317 Honolulu, Hawaii 96850	8/6/93	***
U.S. Department of Agriculture Soil Conversation Service P.O. Box 50004 300 Ala Moana Boulevard Honolulu, Hawaii 96850	8/6/93	8/24/93
U.S. Department of the Interior Fish and Wildlife Services P.O. Box 50156 300 Ala Moana Boulevard Honolulu, Hawaii 96850	8/6/93	9/29/93

County of Maui Planning Department 200 South High Street Wailuku, Hawaii 96793	8/6/93	***
County of Maui Department of Parks and Recreation 200 South High Street Wailuku, Hawaii 96793	8/6/93	***
County of Maui Department of Public Works 200 South High Street Wailuku, Hawaii 96793	8/6/93	9/14/93
County of Maui Department of Water Supply 200 South High Street Wailuku, Hawaii 96793	8/6/93	9/13/93
County of Maui Economic Development Agency 200 South High Street Wailuku, Hawaii 96793	8/6/93	***
Maui Malama Pono P.O. Box 1297 Makawao, Hawaii 96768	8/6/93	Undlvbl
Maui Tomorrow P.O. Box 428 Honolulu,Hawaii 96768	8/6/93	Undlvbl
Native Hawaiian Plant Society P.O. Box 5021 Kahului, Hawaii 96732	8/6/93	***
Sierra Club Hawaii Chapter Maui Group P.O. Box 2000 Kahului, Hawaii 96732	8/6/93	***

*** Denotes no response received and assummed no comments to offer

undlvbl = indicates undeliverable

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P.W. Secty.
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Proj. Mgmt. Br.
4, 2 - Design Br.
Inspec. Br.
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Psnl. Off.
Pre-Audit
1 - MRC
D-1135.3

SEP 1 1 1995

Mr. Robert P. Smith
Fish and Wildlife Service
U.S. Dept. of the Interior
P.O. Box 50167
Honolulu, Hawaii 96850

Dear Mr. Smith:

Subject: Environmental Assessment for
Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Thank you for your comments on the environmental assessment.

We will include a statement on the absence of rare and endangered plant and animal species as well as the absence of wetlands within the project area in the final assessment.

All stormwater runoff will be collected and discharged into an on-site leaching system.

Should you need additional information, please contact Mike Shigetani, project coordinator, at 586-0434.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

MS/lh

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Office
P.O. Box 50167
Honolulu, Hawaii 96850

TAKE PRIDE IN AMERICA

SEP 28 1993

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SEP 29 8 20 AM '93
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STATE

State P.W. Engr		Approval	
P.W. Secy		Sign	
Staff Serv. Br		Info	
Planning Br.		File	
Proj. Mgmt. Br		See me	
Design B		Comments	
Insp. Br		Invest &	
Qual. Cont. Engr.		Rect	
Leasing Serv. Br.			

3-MS

In Reply Refer To: AAP

Mr. Gordon Matsuoka
Department of Accounting and General Services
State of Hawaii
P. O. Box 119
Honolulu, Hawaii 96810

Re: Environmental Impact Assessment for Maui Community Correctional Center 80-Bed Work Furlough Center D.A.G.S. Job No. 15-27-6230

Dear Mr. Matsuoka:

The U.S Fish and Wildlife Service (Service) has reviewed the Environmental Impact Assessment (EIA) for the Maui Community Correctional Center 80-Bed Work Furlough Center, Wailuku, Maui, Hawaii, and offers the following comments for your consideration.

Although the existing vegetation at the project is described in the EIA, we recommend including statements in the **FLORA** and **FAUNA** sections of the document citing the absence of rare and endangered and threatened plant and animal species, respectively. Similarly, the absence of wetlands should be referenced within a **WATER RESOURCES** section.

The EIA site plan indicates a proposed new parking area for the project. However, the EIA and site plan do not specify the actual number of parking stalls that will accommodate the furlough center. Increases in on-site paved areas for parking may increase storm water discharges within the property. Although the **WATER QUALITY** section mentions that rainwater will be handled by an on-site leaching field, the Service recommends that the leaching field be adequately designed to handle all storm water runoff for the project.

Based on the information presented in the document and to the best of our knowledge, the Service believes that the proposed project will not adversely impact fish and wildlife resources within the project area.

Based on the information presented in the document and to the best of our knowledge, the Service believes that the proposed project will not adversely impact fish and wildlife resources within the project area.

We appreciate the opportunity to provide these comments. If you have questions or need further assistance, please contact Arlene Pangelinan (808/541-3441).

Sincerely,

Robert P. Smith

Robert P. Smith
Field Supervisor
Pacific Islands Office

RECEIVED
AUG 25 1993
AGRICULTURE

United States Department of Agriculture

Soil Conservation Service

P. O. Box 50004
Honolulu, HI
96850-0001

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August 23, 1993

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Const. Serv. Br.
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a-MS

Mr. Gordon Matsuoka
State of Hawaii
Dept. of Actg. & Gen. Services
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Matsuoka:

Subject: Environmental Impact Assessment for
Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

We have completed our review of the Assessment and have no major concerns about this proposed project. It is recommended that site grading incorporate soil erosion measures to reduce dust transport from the project site. We appreciate the opportunity to provide comment. Should you have any questions please contact Neal Fujiwara, Wailuku Field Office, District Conservationist at (808) 244-2939.

Sincerely,

NATHANIEL R. CONNER
Acting State Conservationist

cc: Neal Fujiwara, District Conservationist, SCS Wailuku Field Office.

Comptroller
a- State P.W. Engr
P.W. Secty.
Staff Serv.
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Hgmt. Br.
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Fiscal Off.
Pers. Off.
Pre Audit

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1-MS

OCT 6 1993

Mr. Nathaniel R. Conner
Acting State Conservationist
Soil Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850-0001

Dear Mr. Conner:

Subject: Environmental Impact Assessment for
Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Thank you for your comments on the environmental assessment.

Soil erosion measures to reduce dust transport are being incorporated in the grading and landscaping plans for the project.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

MS/lh

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

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

July 20, 1993

MEMORANDUM

LOG NO: 8909
DOC NO: 9307AG24

TO: Mike Shigetani
Public Works Design Branch
Department of Accounting and General Services

FROM: for Don Hibbard, Administrator

SUBJECT: Historic Preservation Review of the Proposed Maui Community Correctional Center 80-Day Bed Work Furlough Center - Preparation of an Environmental Assessment
Wailuku, Maui
TMK: 3-8-46: 6

This responds to your request for information to be used in the preparation of an environmental assessment for this project.

A review of our records indicates the absence of historic sites within this parcel. However, the adjacent parcel to the south (parcel 21) contains site 50-04-2916 consisting of the burials encountered during the construction of the Maui Homeless Shelter. One intact primary burial and previously disturbed remains of two individuals were identified. In addition, recent excavations by Maui County Department of Public Works along Waiale Road have encountered two burials. No evidence of habitation sites has been found in the area. Based on previous findings from adjacent areas, it appears that the likelihood for burials to be present in this parcel is high.

You have mentioned on the telephone to Annie Griffin of our staff that the EA will propose monitoring during construction work as a form of mitigation. We believe that an archaeological survey by systematic subsurface testing is necessary to determine the presence or absence of historic sites. It is best to have this work completed as early as possible of the project planning process so that the Maui/Lana'i Islands Burial Council can make a determination of the appropriate treatment of burials, if present. A copy of the report should be submitted to our office for review and comments.

Please contact Ms. Griffin at 587-0013 if you have any questions.

AG:111

3 - Comptroller
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P W Secty
Staff Serv
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2 - Design Br.
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D-1048.4

DEC 15 1994

Mr. Don Hibbard
Administrator
Dept. of Land & Natural Resources
Historic Preservation Division
State of Hawaii
Honolulu, Hawaii

Dear Mr. Hibbard:

Subject: Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Thank you for your comments on the environmental assessment.

As indicated in your memorandum of October 30, 1994, we are in the process of hiring a qualified archaeologist to monitor the excavation activities. The archaeologist will prepare an archaeological monitoring report which will be submitted to you for review and approval.

Should you need additional information, please contact Mike Shigetani at 586-0434.

Very truly yours,

Gordon Matsuoka

GORDON MATSUOKA
State Public Works Engineer

MS/lh

JOHN WAIHEE
GOVERNOR OF HAWAII

KEITH AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

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

October 20, 1994

LOG NO: 13001
DOC NO: 9410KD17
3-MS

MEMORANDUM

TO: Mike Shigetani, Public Works Design Branch
Department of Accounting and General Services.

FROM: Don Hibbard, Administrator
State Historic Preservation Division

SUBJECT: Historic Preservation Review of the Proposed Maui Community Correctional Center Work Furlough Center
Wailuku, Wailuku District, Island of Maui
TMK: 3-8-46: 6

This is a follow-up of our prior comments regarding the Environmental Assessment for the proposed construction project at the Maui Community Correctional Center (Memo dated July 20, 1993). In our prior review of the project, we indicated that a subsurface survey would be needed of the area prior to construction of the proposed facility. We have since reviewed the construction plans and conducted a field inspection of the proposed building site.

The construction plans call for a combination of cutting and filling within the project area, and excavation for water lines, footings, and so on. In general, the extent of cutting varies from one to two feet. The proposed building is to be located on the site of a former shooting range, and has been cut considerably below grade in order to provide safety for surrounding areas. Due to the present condition of the project site, it does not appear highly likely that undisturbed human burials are present. There is, however, a possibility that isolated burials or previously disturbed human remains are present.

Given this new information, we believe that the project will have "no effect" on significant historic sites, if a contingency plan is used to deal with the possibility of isolated burials being found. For this plan, we recommend that excavation activities within the project area be monitored by a qualified archaeologist. This archaeologist could be on-call, and need not be on site at all

times. If human remains are encountered during construction, all activity in the vicinity of the find should cease and the findings should be reported to the State Historic Preservation Division immediately. The monitoring archaeologist will undertake mitigation measures as determined by the State Historic Preservation Division. A report of the monitoring and any additional archaeological work should be submitted to the State Historic Preservation Division for review and approval.

KD:jen

LINDA CROCKETT LINGLE
Mayor
GEORGE N. KAYA
Director
CHARLES JENCKS
Deputy Director
AARON SHINMOTO, P.E.
Chief Staff Engineer

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COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
LAND USE AND CODES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Land Use and Codes Administration
EASSIE MILLER, P.E.
Wastewater Reclamation Division
LLOYD P.C.W. LEE, P.E.
Engineering Division
DAVID WISSMAR, P.E.
Solid Waste Division
BRIAN HASHIRO, P.E.
Highways Division

September 9, 1993

DIVISION OF PUBLIC WORKS
INITIAL ROUTING
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1 State P.W. Engr — Approval
— P.W. Secy — Sign
2 Staff Serv. Br — Info
3 Planning Br. — File
4 Proj. Mgmt. Br — See me
2 Design B — Comments
— Insp. Br — Correct &
— Qual. Cont. Engr — Rept
— Learning Serv. Br.
3-MS

Mr. Gordon Matsuoka
State of Hawaii
Department of Accounting and General
Services
P.O. Box 119
Honolulu, HI 96810

SUBJECT: Environmental Impact Assessment
MAUI COMMUNITY CORRECTIONAL CENTER - 80 BED WORK FURLOUGH CENTER
TMK: 3-8-46:6
D.A.G.S. JOB NO. 15-27-6230

Dear Mr. Matsuoka:

We reviewed the subject environmental impact assessment and have the following comments:

1. Comments from the Engineering Division:

   a. Vehicular access to this site shall be from the existing driveway. No additional access onto Waiale Road will be allowed.

   b. Applicant shall construct an "on-site" drainage system as approved by the Department of Public Works.

   The applicant is requested to contact the Engineering Division at 243-7745 for additional information.

2. Comments from the Wastewater Reclamation Division:

   a. The developer should be informed that Wastewater Reclamation Division cannot insure that wastewater system capacity will be available for the project.

   b. Wastewater contribution calculations are required before building permit is issued.

   c. Developer may be assessed impact fees for treatment plant expansion costs.
   d. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
   e. Indicate on the plans the ownership of each easement (in favor of which party). Note: County will not accept sewer easements that traverse private property.

   The applicant is requested to contact the Wastewater Reclamation Division at 243-7417 for additional information.

3. Comments from the Solid Waste Division:

   a. The owners and their contractors shall implement solid waste reduction, re-use and recycling programs to reduce the amount of solid waste to be disposed of at the County landfills.
   b. All yard debris shall be composted and re-used on their landscape plantings.
   c. Alternative means of disposal of grubbed material and rock shall be utilized other than disposed of at the County landfills.
   d. Refuse collection shall be by a private collector.

   The applicant is requested to contact the Solid Waste Division at 243-7875 for additional information.

4. Comments from the Land Use and Codes Administration:

   a. The proposed wooden structure is not permitted by the building code. Construction shall conform to Type II fire resistive construction.
   b. The proposal is required to be submitted to the Commission on Persons with Disabilities.

   The applicant is requested to contact the Land Use and Codes Administration at 243-7373 for additional information.

Very truly yours,

George N. Kaya

GEORGE N. KAYA
Director of Public Works

RMN:ey
1293f:Page 59-60
xc: L.U.C.A.
Engineering Division
Solid Waste Division
Wastewater Reclamation Division

Comptroller
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Inspec. Br.
Quality Control
Leasing Br.
Contracts
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APR 5 1994

Mr. George N. Kaya, Director
County of Maui
Dept. of Public Works & Waste Management
250 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Kaya:

Subject: Environmental Impact Assessment for
Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Thank you for your comments on the environmental assessment and offer the following response to them:

1. Vehicular access will be from the existing driveway. There will be no additional access required onto Waiale Road.

2. An on-site drainage system will be constructed similar to the one designed for the Maui Community Correctional Center's Expansion/Renovation, Phase I project.

3. Although we are proposing connection to the County's wastewater system, we understand that you cannot insure that the wastewater system will have the capacity to accommodate the flows generated by this project.

4. Wastewater flow calculations will be submitted with the Building Permit Application.

5. We acknowledge that impact fees and assessments for off-site improvements may be imposed by the County.

6. At present, wastewater is proposed to be discharged into the renovated wastewater system of the expansion/ renovation project. No easements are required.

7. A solid waste reduction program will be implemented to reduce the amount of solid waste disposed at County landfills.

8. A private contractor will be hired for refuse collection.

9. The proposed facility is designed as a dormitory type facility and not as a correctional facility as defined in the Building Code. The basis for this is that the occupants (inmates) are not in a fully secured facility and could attend night classes as well as work for businesses under minimal supervision. The State Department of Public Safety concurs that the facility cannot be upgraded to a medium security facility.

10. The plans and specifications for the project has been coordinated with the Commission on Persons with Disabilities.

Should you need additional information, please contact Mike Shigetani, project coordinator, at 586-0434.

very truly yours,

GORDON MATSUOKA
State Public Works Engineer

MS/lh
cc: Dept. of Public Safety (John Borders)

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-7109

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- — Drafting Serv. Br. —
- 2 - Mr.

September 2, 1993

DAGS # 15-27-6230
PL 93-59

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

Dear Mr. Matsuoka:

Re: MAUI COMMUNITY CORRECTIONAL CENTER (ENVIRONMENTAL ASSESSMENT)
TMK 3-8-46:06, WAILUKU

We have little to add to the subject EA. We would normally request that an applicant address water consumption issues in such a document. However, based on the attached correspondence, we will require the appropriate calculations at the time of the building permit application.

The project, if approved, will be served by the Iao Aquifer which is approaching allowabale withdrawal. Therefore, the domestic uses of the project may not be available until such time as a new source for the Central Maui system is developed.

We recommend the use of water-efficient planting and irrigation techniques where landscaping is intended. Guidance may be found in the attached document or in the Maui County Planting Plan.

Sincerely,

David R. Craddick
Director

DDS:ELK:ab
Enclosures

"By Water All Things Find Life."

Printed on recycled paper

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- 3 - State P.W. Engr.
- P.W. Secty.
- Staff Serv.
- Planning Br.
- Proj. Mgmt.
- 4,2 - Design Br.
- Inspec. Br.
- Contracts
- Fiscal Off.
- Pers. Off.
- Pre Audit
- 1 - Mike

D-1134.3

OCT 8 1993

Mr. David Craddick
Director
Department of Water Supply
County of Maui
P.O. Box 1109
Wailuku, Maui, Hawaii 96793-7109

Dear Mr. Craddick:

Subject: Environmental Assessment for
Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Thank you for your comments on the environmental assessment and for the Xeriscape information.

In response to your comments, we offer the following:

1. Water consumption calculations will be submitted with the Building Permit Application.

2. Water-efficient planting and irrigation will be incorporated in the project as well as the use of water conservation devices in the plumbing system.

3. We acknowledge that the Iao Aquifer is approaching its allowable withdrawal capacity and that future water demand may be dependent upon development of a new source for Central Maui.

If you need additional information, please have your staff contact Mike Shigetani, project coordinator, at 586-0434.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

MS/lh

XERISCAPE

Water Conservation Through Creative Landscaping

Xeriscape Defined

Seven Water Conservation Fundamentals

Planning and Design

Soil Improvement

Efficient, Zoned Irrigation

Limited Turf Area

Use of Mulches

Use Of Low Water-Demand Plants

Appropriate Maintenance

Community Water Management

The Department of Water Supply is faced with increasingly more difficult demands regarding water--its supply, quality, distribution, purification, management, and associated costs. Potable water is becoming scarce and the costs of building delivery systems and water treatment plants prohibitive. Consequently, there is a need to conserve water, not only during droughts, but to reduce demands of peak loading on systems in an attempt to delay construction of larger, expensive facilities. Saving water saves energy while conserving other valuable resources.

Water conservation takes on two broad aspects. First, efficient manipulation of physical factors in the landscape - delivery and irrigation systems, soils, percent hardscape used in a design, plants, microclimates, mulch, etc. Secondly, the people factors, which are often more important.

The incorrect perception that water is "cheap" or "inexpensive" has led to the ideas that the water supply is not finite and that it flows towards money. This in turn has fostered a national consciousness that high water use landscapes are normal, desirable and acceptable. Little has been done to change this mind set, particularly as it relates to water conservation in the landscape.

With the increased, continuous demand for high quality water exceeding supply of both surface and below ground sources, a new, philosophy for conservation must be engendered: billing must reflect the real costs of water and people must learn and practice the "whys" and "hows" of water conservation. This is why Xeriscape began.

Xeriscape Defined

XERISCAPE (zir' i scap) is an integrated approach to landscape water conservation. Xeriscape was coined from the Greek word "xero" for dry. Thus, Xeriscape means dryscape or low water use landscaping. Xeriscapes are designed through wise planning, plant and construction materials selection, and proper installation to provide beautiful, water efficient, low maintenance landscapes.

In Hawaiian E' Malama Wai meaning "Cherish Our Water" is used to refer to Xeriscaping.

Many have misread the term as zeroscape, which would imply no landscape or no landscape plantings. Others have equated Xeriscape landscaping with "rockscapes," many of which are not aesthetically pleasing and may not always conserve water or energy. Rockscapes are harsh, produce glare, and do little to prevent noise and air pollution, making them a poor substitute for Xeriscape landscaping.

Seven Water Conservation Fundamentals

The Xeriscape motto, "Water conservation through creative landscaping," provides the umbrella under which a wide variety of landscape water conservation activities may be taught and employed in a community. And although there are many landscape and horticultural techniques that conserve water, Xeriscape programming has focused on seven broad, fundamental areas.

1. Planning and Design
2. Soil Improvement
3. Efficient, Zoned Irrigation
4. Limited Turf Areas
5. Use of Mulches
6. Use of Low Water Demand Plants
7. Appropriate Maintenance

Planning and Design

Architects, planners, and homeowners are encouraged and taught to incorporate standard design elements of function, circulation, topography, exposure, seasonal color, texture, safety, etc. into existing landscapes and new designs with emphasis on conserving, limiting and/or reusing water. 40% to 60% of the water homeowners use goes for yard watering. Appropriate design and planning can provide these very necessary aspects of urban life and conserve water at the same time. Xeriscapes can ameliorate the impact of a severe drought and: avoid the costly clean-up resulting from a "boom and bust" water policy. Tree removal, replanting of landscapes and turfgrass fields are eliminated and real savings to Maui County.

Thayer and Richman (1984) suggest that designing water-conserving landscapes should be considered in two parts. First, the physical ecology of plants and plant communities must be integrated within the microclimates of the landscape. Logically, plants best adapted to the climate, temperatures, sun, wind, and physical nuances of the site thrive best and require the least expenditures for water, energy and maintenance. Secondly, landscape designers must accept that there is a "human ecology" of water use in landscapes. That is, the intensity of human

activity dictates landscape water use. This includes all uses, whether functional or aesthetic. Thayer and Richman coined the term "hydrozone" to describe the type and intensity of human activity in the landscape and identified four classes of hydrozones. These will be discussed under the heading "Efficient, Zoned Irrigation".

Soil Improvement

Residential soils can be difficult soils to manage because they have been badly disturbed by construction and urban activities. Normal soil horizons are mixed unevenly both vertically and horizontally. Often, hardpans exist and impede drainage, and most urban soils have been compacted by heavy equipment or traffic. Many of the physical and chemical soil properties plants require for growth are present at less than optimum levels in urban soils. Soil improvements must correct poor water infiltration, percolation, and drainage, while providing adequate water holding capacity and improving the nutritional status of the soil. Organic amendments meet most of these requirements and improve tilth, making it easier to till the soil and manage weeds. Adding 3-5 cubic yards of well composted organic matter per 1000 square feet and tilling it into the top 8-12 inches of soil is recommended.

Other amendments such as lime be added to adjust an undesirable acid soil condition. These adjustments should be made prior to planting.

Efficient, Zoned Irrigation

Matching the amount of water supplied to each plant with the plant's water requirement is the most efficient way to irrigate.

Until recently this was difficult to do and most landscapes were irrigated to meet the needs of the turfgrass or other plants with high water requirements. Sprinklers cover large areas without regard to the water needs of individual plants. To eliminate waste by overwatering and run-off, group plants according to their water requirements and use zoned irrigation systems to deliver water to individual plants or to plants with similar moisture requirements (Figure 10-2). Fewer plants will develop disease or die from overwatering.

not only are irrigation zones established to meet the physical or ecological water needs of plants, but xeriscape landscaping also recognizes that human activity will impact plant zoning to match man's activity as hydrozone planning, and they define four irrigation regimes (Figure 10-3).

The Principal Hydrozone represents the area with the greatest human activity and consequently the greatest water and energy use. Sites in yards, parks, and play fields where people frequently play, sit, walk, gather, or relax place where people regularly contact plants.

The Secondary Hydrozone is less physically impacted by humans, but is visually important areas of passive activities space delineation or focal interest such as flower and shrub beds, entrances, prominent plantings, etc. areas of high visual impact, but seldom touched by humans.

Buffer zones, distant views, median strips, parkways, and embankments-these make up the third hyprozone, called the minimal Hydrozone. In this case, plants are selected that need minimal supplemental water to survive the natural climatic conditions.

The Elemental hydrozone constitutes landscape plantings that require only natural precipitation to survive and seldom, if ever, incur human activity. Utility areas, mulched native plantings, and naturally sustainable, exotic vegetation belong to this hydrozone (Figure 10-4).

Flexible sprinkler heads and nozzles, adjustable delivery rates and coverage, modern valves, and automated controllers - these allow greater water conservation through zoned irrigation. On-off watering is easily programmed to match water infiltration rates into soils, thus avoiding surface runoff. Also, water is better applied to meet specific plant needs as impacted by seasonal human activity and changes in the weather.

Collection systems should be designed and constructed throughout the landscape to gather storm runoff from roofs, walks, drives, and slopes. By grouping high or moderate water requiring plants near swales and collection basins, much of their water needs can be met by natural moisture accumulations rather than irrigation. On the other hand, drought tolerant species may succumb to frequent accumulations of water and should be located on southern exposures or at the tops of slopes. Because they often only require supplemental irrigation during establishment or during a severe drought, a permanent irrigation system may not be needed.

Limited Turf Area

Turfgrasses play a primary role in most landscapes. Turfgrasses make excellent ground covers. They tolerate heavy foot traffic in the backyard, at the park, or on the athletic field. And mowed or unmowed, they stabilize slopes and prevent erosion. They serve to unify designs and instill a sense of pride in home and neighborhood when well kept. Moreover, turf helps keep homes and communities cleaner by reducing particulate and chemical air pollution. Unfortunately, a lawn consumes approximately half the landscape water and requires weekly care, as well, equipment, pest control and periodic cultural practices, such as covering or detheatching contribute to the expense, both in time and money, of maintaining a lawn.

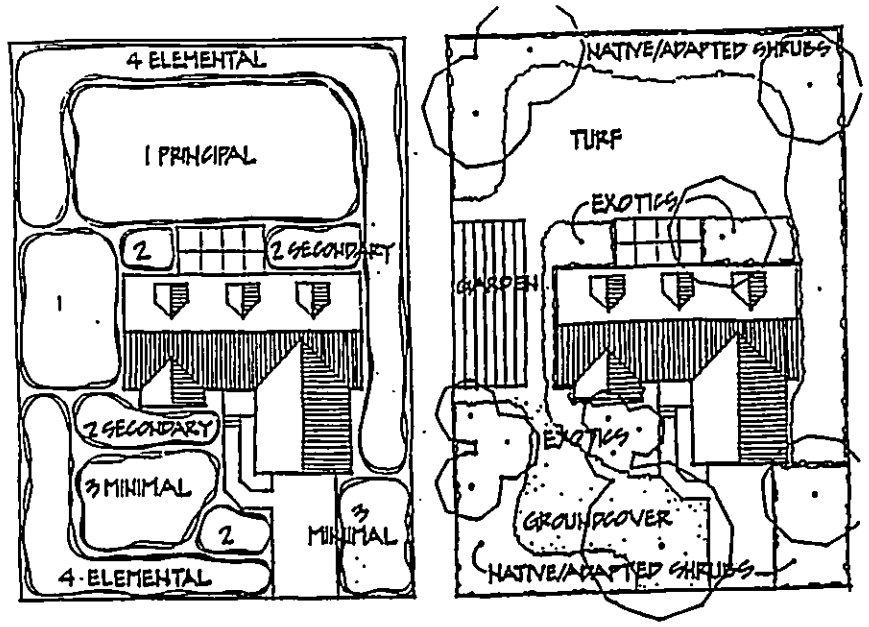
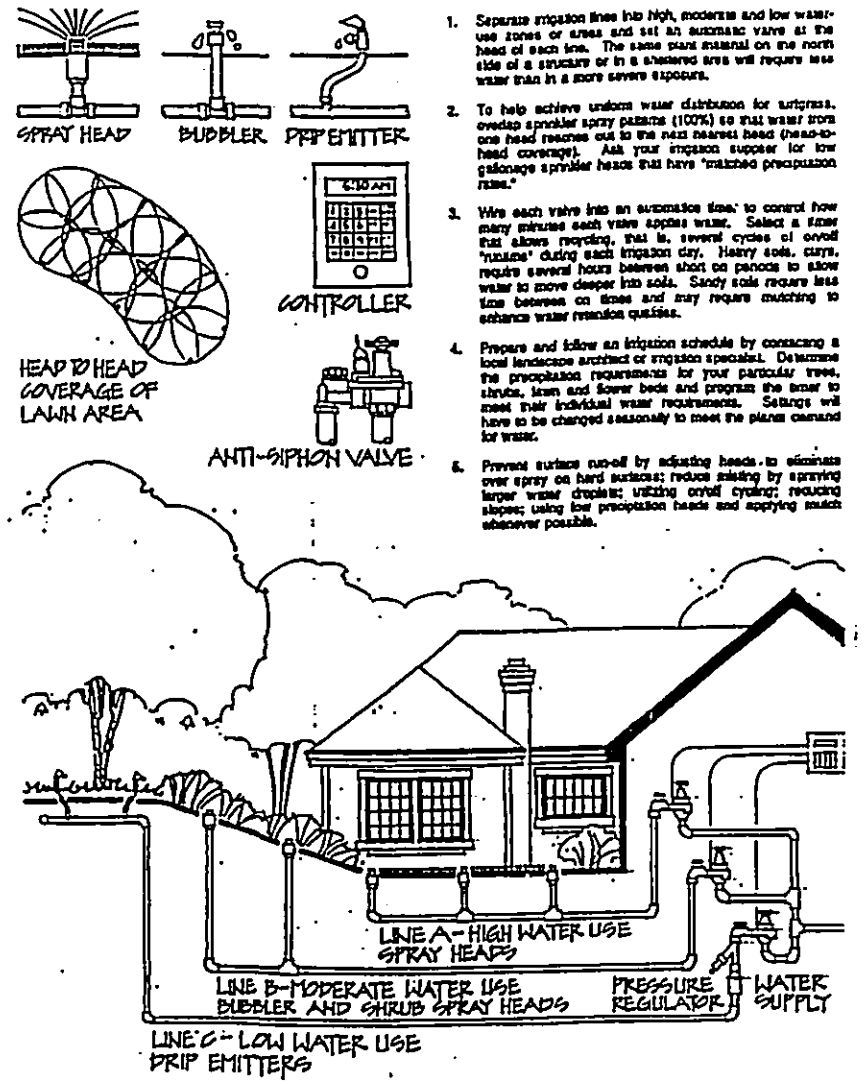


Figure 10-3. Hydrozone Concept Applied to Suburban Lot

Turf should be limited by design to high-use areas in landscapes and separated from other plantings with different water needs. After reviewing the landscape plans, classify the turf areas as either passive or active use and seed and irrigate accordingly. Plant drought-tolerant species with poor resistance to heavy traffic in less-frequented sites.

Not only should the total turf areas be reduced in a landscape, but the perimeter measurement also must be reduced as much as possible. Long, narrow strips of turf are diffcult to properly mow, fertilize, keep pest free, and irrigate. Such strips require hand work to keep them attractive, which increases maintenance time and labor costs. Water from over-spraying turf in narrow planter islands, parkways, side yards, and around entrances not only runs off and is wasted but also contributes to the deterioration of paint, walls, walks, and asphalt in parking lots and streets. Mulches or groundcovers and shrubs on drip or underground irrigation can appropriately replace turf in many landscape sites. Drip emitters or bubblers can be used to irrigate individual plants and eliminate waste caused by overspray. Mulches need no water, and well chosen groundcovers require less water and maintenance than turf.



1. Separate irrigation lines into high, moderate and low water-use zones or areas and set an automatic valve at the head of each line. The same plant material on the north side of a structure or in a sheltered area will require less water than in a more severe exposure.

2. To help achieve uniform water distribution for turfgrass, overlap sprinkler spray patterns (100%) so that water from one head reaches out to the next nearest head (head-to-head coverage). Ask your irrigation supplier for low gallonage sprinkler heads that have "matched precipitation rates."

3. Wire each valve into an automatic timer to control how many minutes each valve applies water. Select a timer that allows recycling, that is, several cycles of on/off "runtime" during each irrigation day. Heavy soils, clays, require several hours between short on periods to allow water to move deeper into soils. Sandy soils require less time between on times and may require mulching to enhance water retention qualities.

4. Prepare and follow an irrigation schedule by contacting a local landscape architect or irrigation specialist. Determine the precipitation requirements for your particular trees, shrubs, lawn and flower beds and program the timer to meet their individual water requirements. Settings will have to be changed seasonally to meet the plants demand for water.

5. Prevent surface run-off by adjusting heads to eliminate over spray on hard surfaces; reduce soiling by spraying larger water droplets; utilizing on/off cycling; reducing slopes; using low precipitation heads and applying mulch whenever possible.

Figure 10-2. Five Steps to Efficient Irrigation

Likewise, the amount of turfgrass in a landscape may be reduced by increasing the hardscape. Patios, wooden decks, rocked and graveled walks limit the turf area while reducing the water requirement.

Use of Mulches

Mulches function to buffer soils against climatic extremes. In summer, they reduce soil heating and slow evaporation water loss from soil surfaces. They also reduce weeds and make those present easier to remove. Proper use of mulches reduces or prevents soil erosion. Organic mulches also contribute to the nutritional level and tilth of the soil as they breakdown.

These practical functions are important; however, many mulches are included in the landscape for their design flexibility and attractiveness, not simply because they save water, protect roots, and reduce maintenance.

Mulches are classified as organic, inorganic, and living. Organic mulches include plant refuse, such as chips and slash from tree trimming operations, saw dust, composted leaves and manures, peat moss, and graded bark products. Sized and washed rocks and gravels are popular inorganic mulches which come in many sizes, colors, and textures. Impervious sheet plastics covered with either organic or inorganic mulches were popular, but because sheet plastic prevents gas and water exchange between air and soil and creates a water-logged root environment, woven, porous plastics are now preferred. Mulches are applied 3 to 4 inches deep over bare soil and only 2 to 3 inches deep over woven fabrics. Living mulches include low growing groundcovers and low maintenance turfgrasses. They function well as mulches, but may be heavy competitors for water and nutrients under newly planted trees and shrubs. If used, select hardy, drought-tolerant species that resist common diseases. These species provide the best results and require less maintenance.

Use Of Low Water-Demand Plants

Many beautiful and functional plants, both exotics and natives, are available that thrive with natural precipitation or small amounts of supplemental water.

Chapter Two lists tree characteristics including their water requirements ranging from dry (less-thirsty) to wet (very-thirsty).

All types of plants with low water requirements are now available and more will become available as demand increases. The range of drought-tolerant plant species and those with low water requirements is now wide enough to permit selecting for function, beauty, and seasonal interest. As with all plant selections and planting, take care to match the specific needs of the plant to the environmental conditions and the intensity of human activity at the planting site. This is critical when using drought tolerant and low water use plants in the landscape. Choosing the proper plants and planting them correctly will reduce water consumption and maintenance costs over many years.

Appropriate Maintenance

Low maintenance is not no maintenance. The use of all or most of the Xeriscape principles will reduce but not eliminate maintenance. And generally, the greater the human activity at a site, the greater its maintenance requirements will be. Trees, shrubs, groundcovers, and turfgrasses are living organisms that require care. Timely fertilizing, watering, pruning, pest management, and other cultural practices are necessary in Xeriscape landscapes, but at reduced levels compared to conventional landscape plantings. Even mulched sites without plants must have litter removed periodically. Irrigation components for drip and sprinkler systems require routine checks and servicing. Xeriscape landscaping coupled with sound maintenance produces water and energy savings and environmentally adapted landscapes that are aesthetically pleasing.

As has been stressed, integrating these principles in landscapes will conserve water and reduce annual maintenance costs. Most importantly though, Xeriscape landscaping provides these benefits without sacrificing function or beauty. And although these seven points are stressed in Xeriscape literature and are the basis for Xeriscape programming, there is no substitute for creativity as a means of discovering and sharing new ways to conserve water without making yards and parks into zeroscapes.

Community education in Xeriscape landscaping is the key to a successful water conservation program. The principles of Xeriscape landscaping challenge the widespread but mistaken belief that water is cheap, unlimited resource which will always be available. Hopefully, the public will recognize that this is a misconception and that water conserving landscapes are necessary and should be considered "normal" within our society. At the same time, it teaches people the "whys" and "hows" of effective water conserving horticulture. To reach these objectives requires the cooperation of government leaders,

agencies, landscape professionals, horticulturists, irrigation specialists, concerned citizens, and an army of volunteers enthusiastically supporting and promoting Xeriscape programming.

Community Water Management

Xeriscape landscaping, when followed, will conserve water, reduce maintenance costs, and establish beautiful, environmentally sound landscapes, parks, recreational facilities and greenspaces throughout a community. Conserving water averts the need to construct costly new delivery systems and waste treatment plants that would otherwise be needed to meet periods of peak loading. Xeriscaping also leads to changes in attitudes about water quality, water use, and how a community's water should be managed, especially in landscape irrigation.

Literature Cited

Urban and Community Forestry - A Guide for the Interior Western United States - United States Department of Agriculture - Forest Service

Thayer, Jr., Robert L. and TG. Richman, "Water-Conserving Landscape Design," In Energy Conserving Site Design, Ed. G. McPherson, Am. Soc. Landscape Architects, 1984.

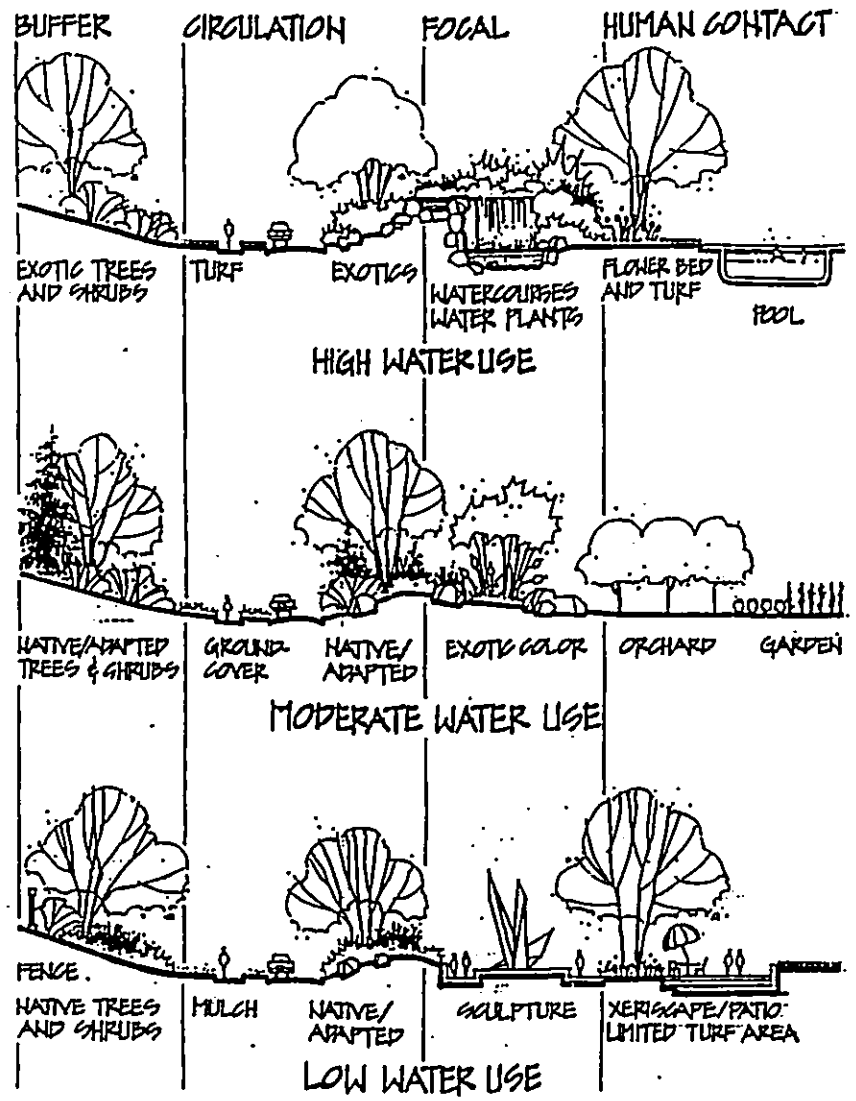


Figure 10-4. Water Use Relating to Human Use—Three Approaches

LOW WATER USE/DROUGHT TOLERANT PLANT LIST

All plants require water for establishment. After they are rooted and growing well their water requirements will vary.

The following is an incomplete list of drought tolerant plants. It is provided for your convenience.

Please review the following reference lists for many other suggestions.

1. Drought Resistant Plants For Hawaiian ardens by Norman C. Benzona, County Extension Agent, Cooperative Extension Service.

2. Drought Tolerant Native Hawaiian Plants for the Landscape ~ by Heidi Bornhorst Horticulturist, Honolulu Botanic Gardens.

3. Halawa Xeriscape Garden Registry of Nurseries that grow Less-Thirstry-Plants-Honolulu Board of Water Supply, November 1989.

Key to Symbols

A	Accent Plant
F	Flower Color
GC	Groundcover
G	Grass
OG	Ornamental Grass
S	Shrub
SC	Succulent
ST	Small Tree
MT	Medium Tree
LT	Large Tree
V	Vines

Key to Zones

Zone 1 - Normal watering level. Includes lush lawns and gardens.

Zone 2 - Moderate watering level. Includes lawns, ground covers and shrubs.

Zone 3 - Low watering level. Includes self-sustaining plant materials and natural vegetation with emphasis on plants that require little or no supplemental irrigation.

Type	Botanical Name	Zone	Common Name
S	Abutilon menziesii	3	Ko'o Loa'ula
MT	Acacia koa	2	Koa
A,F,S,SC	Adenium obesum	3	Desert Rose
A,F,GC	Agapanthus africanus	2	Lily of the Nile
A,SC,S	Agave attenuata	3	Agave
MT	Aleurites moluccana	2	Kukui
S,GC,F	Aniscanthus thurberi	3	Desert Honeysuckle
V,GC,F	Antigonon leptopus	3	Mexican Creeper(3 colors
S,GC,A	Asparagus densiflorus sv 'Meyers'	2	Foxtail Asparagus
S,GC,A	A. densiflorus 'Sprengeri'	2	Sprenger Asparagus
A	Aspidistra elatior 'variegata'	2	Cast Iron Plant
GC	Asystasia gangetica	3	Asystasia
V,SC,GC	Aptenia cordifolia	3	Hearts and Flowers
MT,F	Bauhinia blakeana	2	Hong Kong Orchid Tree
V,F	B. galpinii	2	Red Bauhinia
ST,F	B. tomentosa	3	Yellow Bauhinia
A,SC,ST	Beaucarnea recurvata	3	Pony tail
A,V,F	Bougainvillea 'Crimson Jewel'	2	
A,V,F	Bougainvillea 'Jamaica White'	2	
A,V,F	Bougainvillea 'Rosenka'	2	
A,V,F	Bougainvillea 'Temple Fire	2	
ST	Brexia madagascariensis	2	Brexia

Type	Botanical Name	Zone	Common Name
MT	Caesalpinia ferrea	2	Brazilian Ironwood
A,S,F	Caesalpinia pulcherrima	3	Ohai ali'i(3 colors)
S	Calotropis gigantea	3	Crown Flower
ST	Canthium odoratum	3	Alahe'e
S	Carissa grandiflora	3	Natal Plum
S,GC	C. grandiflora prostrata	3	Creeping Natal Plum
S,ST,F	C. surratensis	3	Kolomona
SC,GC	Carpobrotus edulis	3	Hotentot Fig
MT,F	Cassia fistula	3	Yellow Shower
MT,F	Cassia fistula x C. javanica	2	Rainbow Shower (All Colors)
ST	Ceratonia siliqua	3	Carob Tree
V,GC,S	Clerodendron inerme	3	Glory Bower
MT	Clusia rosea	3	Autograph Tree
S	Clusia sp.	3	Small Leaf Clusia
MT,F	Cochlospermum vitifilium	3	Buttercup Tree
MT,F	Cordia subcordata	2	Kou
OG	Cortaderia selloana	3	Pampas Grass
S,SC,A	Crassula argentea	3	Jade Plant
ST	Crescentia cujete	3	Calabash Tree
V	Cryptostegia grandiflora	3	India Rubber Vine
A,S	Cycas revoluta	2	Sago Palm
G	Cynodon dactylon	3	Bermuda Grass
A,S,SC	Dasyliron wheeleri	3	Spoon Flower
MT,A,F	Delonix regia	2	Royal Poinciana (3 colors)
S	Dodonaea viscosa	3	'A'ali'i
LT	Enterolobium cyclocarpum	3	Earpod
MT	Eriobotrya japonica	2	Loquat
MT	Erythrina sandwicensis	3	Wiliwili
MT	Erythrina "Tropic Coral"	2	Tropic Coral Wiliwili
MT	E. variegata var. orientalis	2	Tigers Claw
S,SC,A	Euphorbia cotinifolia	2	Hierba mala
A,GC,SC	E. millii	3	Crown of Thorns
ST,A	Feijoa sellowiana	2	Pineapple Guava
S	Ficus buxifolia	2	Boxwood Ficus
ST,A	Ficus carica	3	Fig
S,A	F. diversifolia	2	Mistletoe Fig
LT	F. microcarpa	3	Chinese Banyan
S,GC	F. microcarpa var. crassifolia	3	Taiwan Ficus
A,SC	Furcraea aff. giantea variegata	3	Variegated Furcraea

Type	Botanical Name	Zone	Common Name
S,A	Gardenia brighamii	2	Nanu
S,GC	G. radican	2	Creeping Gardenia
S	Gossypium tomentosum	3	Ma'o
S,A	Grewia occidentalis	2	Lavendar Star
ST,A	Guaiacum officinale	3	Lignum Vitae
S,A,F	Hibiscus brackenridge	2	Ma'o hau hele
S,GC	H. calyphyllus	3	Rock's Hibiscus
S,A,F	H. 'Carnation'	2	Carnation Hibiscus
S,A,F	H. 'Cooperi'	2	Calico Hibiscus
S,A,F	H. schizopetalus	2	Coral Hibiscus
S,A,F	H. schizopetalus 'Pagoda'	2	Pagoda Hibiscus
S,A,F	H. waimeae	2	Koki'o ke'o ke'o
S,F	Jasminum sambac	2	Pikake
S,F	J. sambac 'Duke of Tuscany'	2	Giant Pikake
GC	Juniperus chinensis procumbens	2	Japanese Garden Juniper
S,GC,F	Lantana camara 'Radiation'	2	Lantana
GC,F	Lantana cv 'Gold Mound'	2	
GC,F	L. montevidensis	2	Trailing Lantana
S,A	Laurus nobilis	2	Bay Laurel
ST	Myoporum sandwicense	3	Naio
S,A	Nandina domestica compacta nana	2	Dwarf Nandina
S,F	Nerium oleander	3	Oleander
S,F	Nerium oleander f. 'dwarf'	3	Dwarf Oleander
S	Nototrichium sandwicensis	3	Kului
MT	Olea europaea	3	Olive
S	Osteomeles anthyllidifolia	3	'Ulei
G	Paspalum vaginatum	2	Seashore Paspalum
MT	Pithecellobium dulce 'variegata'	2	Variegated Opiuma
S,GC	Pittosporum tobira 'wheeleri'	2	Wheeler's Pittosporum
S,F	Plumbago auriculata	3	Cape Leadwort
S,GC	P. zeylanicum	3	'Ilie'e
MT,F	Plumeria hybrid(and spp.)	2	Plumeria.
S,A,SC	Potuiacaria afra	3	Miniature Jade
MT,F	Pseudobombax ellipticum	2	Pink Bombax
S,ST	Punica granatum	3	Pomegranate
A,GC	P. granatum nana	3	Dwarf Pomegranate

Type	Botanical Name	Zone	Common Name
S	Rosemarinus offcinalis	3	Rosemary
GC	R. officinalis var. prostrata	3	Creeping Rosemary
S,A,F	Russelia equisetifolia	2	Coral Plant
T	Samanea saman	3	Monkey Pod
A	Sansevieria spp.	3	Sansevieria
MT	Sapindus saponaria	2	Soapberry Tree
S	Scaevola taccada	3	Naupaka
ST	Schinus molle	3	California Pepper Tree
GC,SC	Sedum spp.	3	Sedum
V,F	Senecio confusus	2	Mexican Flame Vine
V,GC	Stapelia nobilis	3	Giant Carrion Flower
G	Stenotaphrum secundatum	2	St. Augustine Grass
OG	S. secundatum variegatum	2	Variegated St. Augustine Grass
A,F	Strelitzia reginae	2	Bird of Paradise
MT	Tabebuia argentea	2	Silver Trumpet Tree
LT	T. chrysantha	2	Trumpet Tree
LT	T. donnel-smithii	2	Gold Tree
MT	Tamarix aphylla	3	Desert Athel
V,GC,F	Thevetia peruviana	3	Be-still Tree
GC	Tradescantia spathacea	3	Oyster Plant
S,GC	Vikstroemia uva-ursi	3	'Akia
A,SC	Yucca gloriosa	3	Spanish Bayonet
G	Zoysia tenuifolia 'Elegance'	2	
G	Z. tenuifolia 'Emerald'	2	

JOHN WAIHEE
GOVERNOR OF HAWAII

DEPARTMENT OF PUBLIC WORKS

1 State P.W. Engr — Approval —
— P.W. Secy — Sign —
— Staff Serv. Br — Info —
— Planning Br. — File —
— Proj. Mgmt. Br — See me —
2 Design Br — Comments —
— Insp. Br — Invest & —
— Qual. Cost. Engr — Prep: —
— Leasing Serv. Br. —
3 - MS

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

RECEIVED
Sep 29 2 17 PM '93
DAGS

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

In reply, please refer to:

September 28, 1993

93-240/epo

To: Gordon Matsuoka, State Public Works Engineer
Department of Accounting and General Services

From: John C. Lewin, M.D.
Director of Health

Subject: Request for Comments
Environmental Assessment for Maui Community Correctional Center
(DAGS JOB NO. 15-27-6230)
Wailuku, Maui
TMK: 3-8-46: 6

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Wastewater

The subject project is located below the Underground Injection Control Line and in a critical wastewater disposal area as determined by the Maui County Wastewater Advisory Committee. No new cesspools will be allowed in the subject area.

Wastewater generation and disposal have not been addressed in the document, therefore, we cannot offer any comments at this time. We will require a review of any follow-up document regarding wastewater treatment and disposal.

However, if the project is located within a municipal sewer system, we will require connection to the sewer service system. No other means of wastewater disposal will be acceptable. Non-availability of treatment capacity will not be an acceptable justification for use of any private treatment works.

All wastewater plans must conform to applicable provisions of the DOH's Administrative Rules, Chapter 11-62, "Wastewater Systems."

If you should have any questions on this matter, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4290.

c: Wastewater Branch
Safe Drinking Water Branch

Comptroller
3 - State P.W. Engr
P.W. Secty.
Staff Serv.
Planning Br.
Proj. Mgmt. Br.
4, 2 - Design Br.
Insp. Br.
Contracts
Fiscal Off.
Pers. Off.
Pre Audit
1 - MIKE VS

OCT 8 1993

D-1133.3

Dr. John C. Levin
Director of Health
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Dr. Levin:

Subject: Environmental Assessment for
Maui Community Correctional Center
80-Bed Work Furlough Center
D.A.G.S. Job No. 15-27-6230

Thank you for your comments on the environmental assessment.

We offer the following response to your comments:

1. Wastewater discharge from the proposed facility will be connected to the County's sewer system.

2. We acknowledge that your department will only accept wastewater disposal into the municipal system.

3. Wastewater plans will comply with DOH requirements.

Should you need additional information, please have your staff contact Mike Shigetani, project coordinator, at 586-0434.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

MS/lh