

*Keanae Baseyard  
Renovations*

BENJAMIN J. CAYETANO  
GOVERNOR



NONOKEKENE  
COMPTROLLER

MARY PATRICIA WATERHOUSE  
ACTING COMPTROLLER

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

RECEIVED

LETTER NO. EM-1060.8

'98 MAR 23 12:19

MAR 19 1998

OFF. OF ENVIRONMENTAL  
QUALITY CONTROL

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

Dear Mr. Gill:

**Subject:** Department of Transportation - Maui District  
Keanae Baseyard Renovations  
D.A.G.S. Job No. 25-29-7632  
TMK: 1-1-02:por. 9 and 1-1-02:10

In accordance with the provisions of Chapter 343, Hawaii Revised Statutes, and Title 11, Chapter 200 of the Administrative Rules of the State Department of Health, a Supplemental Final Environmental Assessment has been prepared for the proposed project. Notice of the availability of the Supplemental Draft Environmental Assessment for the project was published in the February 8, 1998, edition of the Environmental Notice.

As the approving agency, the Department of Accounting and General Services believes that there will be no significant impacts as a result of the proposed action and, accordingly, is filing a Findings of No Significant Impact (FONSI).

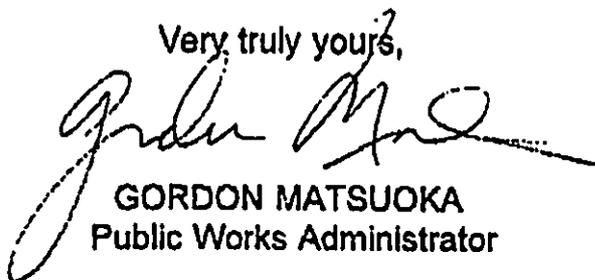
Enclosed are one (1) copy of the OEQC Publication form and four (4) copies of the Supplemental Final Environmental Assessment. Also, please note that the Project Summary will be transmitted to you under separate cover via e-mail. We respectfully request that notice of the availability of the

27

Mr. Gary Gill  
Letter No. PM-1060.8  
Page 2  
MAR 19 1996

Supplemental Final Environmental Assessment be published in the next edition  
of the Environmental Notice.

Very truly yours,



GORDON MATSUOKA  
Public Works Administrator

EN/si  
Encl.

cc: Bob Siarot, Department of Transportation (w/o encl.)  
Jun Sakauye, Thomas Agawa & Associates (w/o encl.)  
Harvey Hida, Hida, Okamoto & Associates, Inc. (w/o encl.)  
Glenn Tadaki, Munekiyo, Arakawa & Hiraga, Inc. (w/o encl.)

1998-04-08-MA-*FEA*-Keanae Baseyard  
Renovations

APR 8 1998

**FILE COPY**

# *Supplemental Final Environmental Assessment*

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## **KEANAE BASEYARD RENOVATIONS**

Prepared for

State of Hawaii  
Department of Accounting  
and General Services

March 1998



*Supplemental Final  
Environmental Assessment*

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**KEANAE BASEYARD  
RENOVATIONS**

Prepared for

State of Hawaii  
Department of Accounting  
and General Services

March 1998



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# CONTENTS

Preface	i
I. PROJECT OVERVIEW	1
A. BACKGROUND	1
B. PROPOSED ACTION	2
II. AFFECTED ENVIRONMENT	5
A. FLOOD AND COASTAL HAZARDS	5
B. FLORA, FAUNA, AND WETLANDS	5
C. AIR AND NOISE QUALITY	5
D. SCENIC AND OPEN SPACE RESOURCES	5
E. CULTURAL RESOURCES	5
F. PUBLIC SERVICES	6
G. INFRASTRUCTURE	6
III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS	8
IV. ALTERNATIVES TO THE PROPOSED ACTION	9
V. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES	10
VI. FINDINGS AND CONCLUSIONS	11
VII. AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED DURING THE PREPARATION OF THE SUPPLEMENTAL DRAFT ENVIRONMENTAL ASSESSMENT	15

VIII.	LETTERS RECEIVED DURING THE SUPPLEMENTAL DRAFT ENVIRONMENTAL ASSESSMENT PUBLIC COMMENT PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS	22
<hr/>		
IX.	LIST OF PERMITS AND APPROVALS	23
<hr/>		
REFERENCES		
<hr/>		
LIST OF APPENDICES		
	A Preliminary Drainage Report (October 1997)	
	B Site Photographs and Photo Reference Map	
	C Letter from C. Earl Stoner, Jr. dated October 21, 1997 commenting on the Preliminary Drainage Report (October 1997)	
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Figure 1	Regional Location Map .....	3
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agawa@kearney.com

## Preface

The State Department of Accounting and General Services (DAGS) is proposing modifications to the drainage system improvements which were originally proposed in connection with the redevelopment of the existing State Highways Division baseyard identified by TMK 1-1-02:10 in Keanae, Maui, Hawaii. With the exception of the proposed drainage system modifications, no other changes to the scope of the project are proposed.

The proposed action involves the use of State lands and funds and represents a change in the scope of the project's originally proposed drainage system improvements. Pursuant to Chapter 343, Hawaii Revised Statutes (HRS), and Chapter 200 of Title 11, Hawaii Administrative Rules pertaining to Environmental Impact Statement Rules, this Supplemental Environmental Assessment (EA) documents the technical characteristics and environmental impacts associated with the proposed action and advances findings and conclusions relative to the significance of this action.

# ***Chapter 1***

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## ***Project Overview***

## **I. PROJECT OVERVIEW**

### **A. BACKGROUND**

A Final Environmental Assessment (EA) and Findings of No Significant Impact (FONSI) for the Keanae Baseyard Renovation project was published in the April 8, 1997 edition of the Environmental Notice.

The proposed action also requires a Special Management Area Use Permit and a State Land Use Commission Special Use Permit. During the processing of these applications, concerns were raised regarding the drainage system discharge characteristics proposed by the original drainage improvements. (The original drainage improvements proposed the conveyance of stormwater to an undeveloped State-owned parcel located makai of Keanae Homestead Road.) Towards addressing these issues, the State Department of Accounting and General Services (DAGS) conducted additional drainage systems evaluations, identifying a drainage system concept which conveyed flows through the neighboring YMCA property. The "YMCA" option was deemed to be technically feasible and was subsequently selected.

While the other components of the project have remained unchanged, the proposed action represents a change in the scope of the project's original drainage system improvements. Accordingly, this Supplemental EA focuses on the proposed drainage system modifications and examines potential impacts and appropriate mitigation measures related to this action.

In addition, this Supplemental EA incorporates the Final EA for the redevelopment project by reference and does not address elements of the project which remained unchanged.

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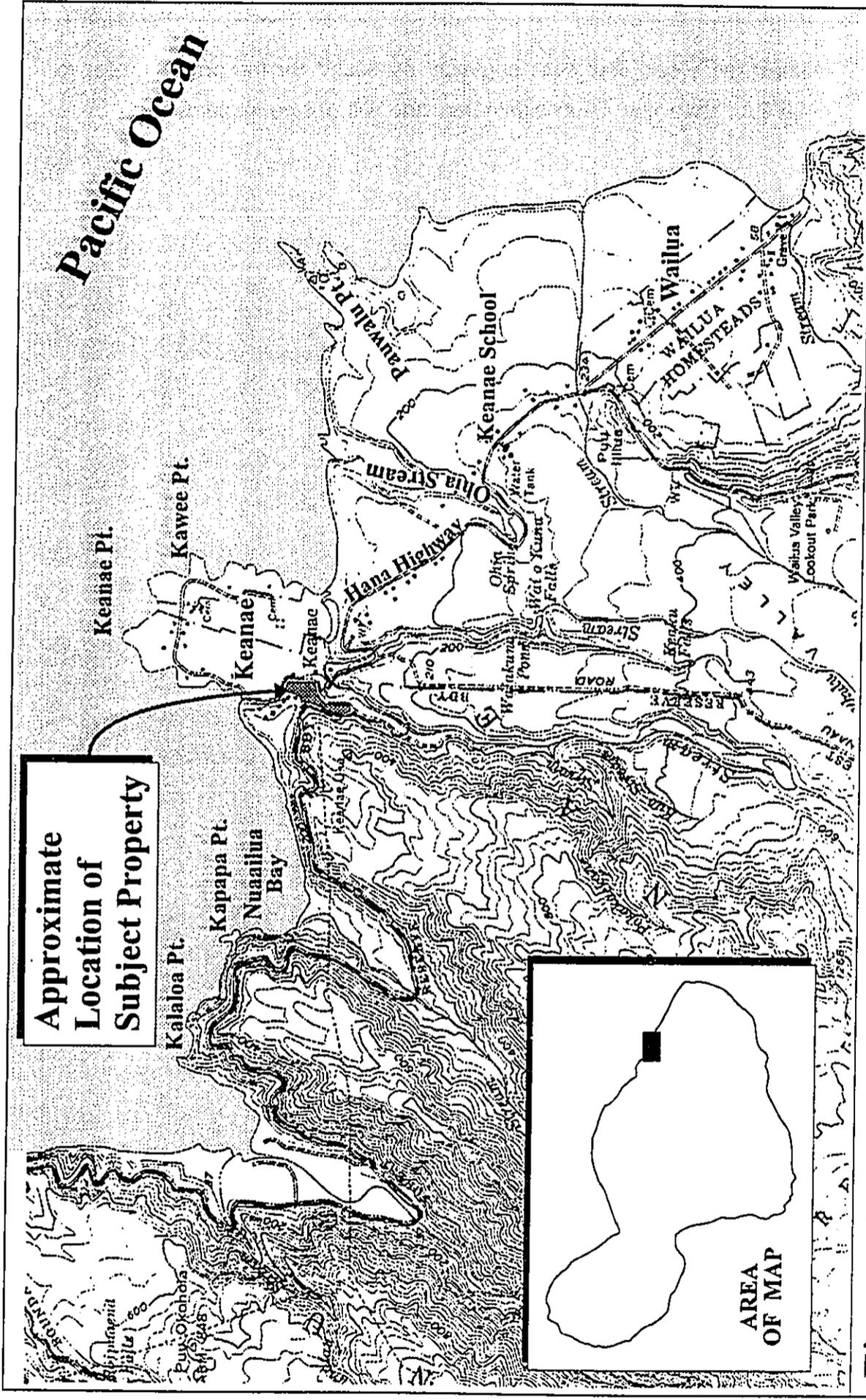
**B. PROPOSED ACTION**

The applicant and approving agency, the State Department of Accounting and General Services (DAGS), is proposing to modify the drainage system improvements that were originally proposed in connection with the redevelopment of the existing State Highways Division baseyard in Keanae, Maui, Hawaii. Owned by the State of Hawaii and identified by TMK 1-1-02:10, this approximately 3.1-acre parcel is occupied by the Keanae Baseyard and is under the control and management of the State Department of Transportation (DOT). See Figure 1.

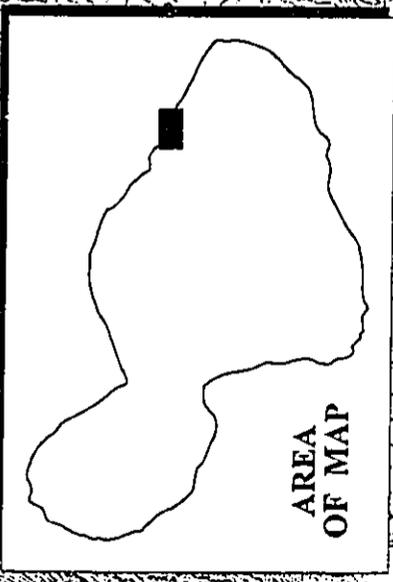
The proposed drainage system modifications are anticipated to further improve existing drainage conditions in the area, including minimizing the effects of offsite runoff from the adjoining Hana Highway. The proposed drainage system will involve the construction of a new drainline, inlets, and a headwall located on an adjoining State-owned parcel (TMK: 1-1-02:09) encompassing about 7.7 acres which is leased to the YMCA and occupied by Camp Keanae. See Appendix A and Appendix B.

Onsite, as well as offsite stormwater runoff will be collected by an enlarged Hana Highway drain inlet, and will be conveyed by a new 30-inch underground drainline which runs along the YMCA's existing service road and across an open, grassed area. Current runoff generated by the YMCA site will be collected by three (3) new inlets connecting to the new drainline along the service road. Onsite and offsite runoff will then be discharged by a new headwall located on a lower portion of the YMCA site into a natural, vegetated drainage area where it will either percolate into the ground or evaporate.

Due to these modifications, the drainline along Keanae Homestead Road and the headwall situated on a State-owned parcel makai of the



**Approximate  
Location of  
Subject Property**



**AREA  
OF MAP**

**Figure 1**  
**Keanae Baseyard Renovations**  
**Regional Location Map**



Prepared for: State of Hawaii, Dept. of Accounting and General Services

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Homestead Road that were originally proposed for the project (refer to Final EA) have now been eliminated and will not be implemented.

# ***Chapter II***

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## ***Affected Environment***

## **II. AFFECTED ENVIRONMENT**

Potential impacts to the physical and socio-economic environment, public services, and infrastructure, as well as appropriate mitigation measures were described in the Final EA for the Keanae Baseyard Renovation project. This section therefore examines the affected components of the environment relative to the proposed modified drainage improvements.

### **A. FLOOD AND COASTAL HAZARDS**

The area encompassed by the proposed action is located within Zone C, an area of minimal flooding.

### **B. FLORA, FAUNA, AND WETLANDS**

There are no rare, endangered, or threatened species of flora, fauna, avifauna or wetlands located within the limits of the proposed action.

### **C. AIR AND NOISE QUALITY**

Construction activities may temporarily affect air and noise quality. However, these impacts will be addressed through the mitigation measures described in the Final EA.

### **D. SCENIC AND OPEN SPACE RESOURCES**

The proposed improvements will not encroach into scenic corridors or impact open space resources.

### **E. CULTURAL RESOURCES**

In correspondence dated January 12, 1998, the State Historic Preservation Division (SHPD) indicated that the area encompassed by the proposed improvements was previously disturbed in connection with the construction of Camp Keanae. Accordingly, no adverse impacts to cultural resources are anticipated. See SHPD comment letter in Chapter

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VII. Should any cultural remains be located during construction activities, the mitigation measures described in the Final EA will be implemented.

**F. PUBLIC SERVICES**

The proposed action is not anticipated to impact the service capabilities of police, fire, and emergency medical operations nor is it expected to affect educational or recreational resources.

**G. INFRASTRUCTURE**

Roadway, water, and wastewater systems are not expected to be affected by the proposed action. In connection with the proposed action, a site inspection of Camp Keanae was undertaken by DAGS and YMCA personnel on August 6, 1997 to review the area encompassed by the proposed drainage system modifications. In addition, a copy of the Preliminary Drainage Report (refer to Appendix A) was also provided to the YMCA for review and comments. See Appendix C.

Based on a 50-year, one-hour storm, existing stormwater runoff from the project area is approximately 4.12 cubic feet per second (cfs), while post-development runoff is projected to be about 8.70 cfs, an increase of approximately 4.58 cfs. Refer to Appendix A. This increase in runoff, which is attributable to impermeable surface areas, will be mitigated with the underground installation of 200 linear feet of perforated drainline on the baseyard site.

The proposed action is anticipated to improve existing drainage conditions in the area by effectively accommodating the project's onsite runoff, as well as minimize the effects of erosion and standing water from stormwater ponding at the curve of Hana Highway and sheetflowing onto the baseyard and YMCA sites.

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The proposed improvements will be designed in accordance with applicable regulatory standards to ensure that adjoining and downstream properties are not adversely impacted by stormwater runoff.

# ***Chapter III***

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***Relationship to Governmental  
Plans, Policies, and Controls***

### **III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS**

The land underlying the proposed drainage system modifications is designated "Agricultural" by both the State Land Use Commission and the Hana Community Plan, and "Interim" by Maui County zoning. Permitted uses within the Interim District include publicly owned facilities. As described in the Final EA, the proposed action is in keeping with the objectives and policies of the Maui County Special Management Area (SMA).

# ***Chapter IV***

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***Alternatives to the  
Proposed Action***

#### **IV. ALTERNATIVES TO THE PROPOSED ACTION**

Drainage system alternatives previously examined in connection with the Keanae Baseyard Renovation project included a detention basin along the eastern extent of the project site, as well as the drainline and headwall described in the project's Final EA. The detention basin was eliminated from consideration due to concerns regarding slope stability in the area, while the drainline and headwall were discounted due to concerns regarding the stormwater discharge characteristics associated with this system.

The proposed action represents a preferred alternative to the drainage system improvements which were previously examined since existing drainage conditions in the area will be further improved. The modified drainage concept will effectively accommodate onsite and offsite runoff and mitigate the effects of ponding and erosion caused by stormwater collecting along Hana Highway and sheetflowing onto the baseyard and YMCA sites.

The "no action" alternative is not considered a viable option since the effects of stormwater runoff from Hana Highway will continue to impact the YMCA site.

The "deferred action" alternative will have similar consequences as the "no action" alternative in that this alternative could result in potentially higher development costs due to increases in labor and material costs.

# **Chapter V**

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## ***Irreversible and Irretrievable Commitment of Resources***

**V. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

The proposed drainage system modifications will involve the use of State funds and lands for improvements which will provide for stormwater runoff to be effectively managed and accommodated. There are no other irreversible and irretreivable commitment of resources anticipated.

# **Chapter VI**

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## ***Findings and Conclusions***

## **VI. FINDINGS AND CONCLUSIONS**

Every phase of the proposed action have been evaluated in accordance with the Significance Criteria of Section 11-200-12 of the Administrative Rules. Based on the analysis, it has been determined that the proposed action will not result in any significant impacts. Discussion of project conformance to the criteria is noted as follows:

1. **No irrevocable commitment to the loss or destruction of any natural or cultural resource would occur as a result of the proposed project**

The proposed action will not result in any adverse environmental impacts. There are no known, rare, endangered or threatened species of flora, fauna, avifauna or wetlands located within the limits of the proposed drainage system modifications.

The area encompassed by the proposed drainage system improvements was previously disturbed in connection with the development of Camp Keanae. Accordingly, no adverse impacts to cultural resources are anticipated.

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

The proposed drainage system modifications will not affect or limit uses of the environment.

3. **The proposed action does not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes**

The State Environmental Policy and Guidelines are set forth in Chapter 344, Hawaii Revised Statutes (HRS) and were reviewed in connection

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with the proposed project. The proposed action is in consonance with the State's long-term environmental policies and goals of Chapter 344, HRS.

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

The proposed action is intended to improve existing drainage conditions in the area.

The economic and social welfare of the community will not be affected by the proposed action.

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

No impacts to the public's health and welfare are anticipated as a result of the proposed action.

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

The proposed action will not affect the Island's population base or place new demands on the Island's public facilities.

7. **No substantial degradation of environmental quality is anticipated**

During construction, appropriate environmental mitigation measures (as described in the Final EA) will be used to ensure that adverse environmental effects are minimized. Such effects are anticipated to be limited to temporary construction-related effects. Accordingly, no substantial degradation of environmental quality resulting from the proposed action is anticipated.

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8. *The proposed action does not involve a commitment to larger actions, nor would cumulative impacts result in considerable effects on the environment*

The proposed modifications to the project's drainage system is not part of a larger action and will not create any significant long-term impacts.

9. *No rare, threatened or endangered species or their habitats would be adversely affected by the proposed action*

There are no rare, threatened or endangered species of flora, fauna, avifauna or their habitats located within the limits of the proposed drainage system modifications.

10. *Air quality, water quality or ambient noise levels would not be detrimentally affected by the proposed project*

Construction activities for the proposed project will result in short-term air quality and noise impacts. Appropriate dust control measures (e.g., water application to freshly graded areas, temporary grassing) will be implemented by the contractor to ensure that fugitive dust generated in connection with construction is minimized.

In the long term, the project is not anticipated to have a significant impact on air or noise quality. Additionally, water quality in the immediate area is not anticipated to be adversely affected by the proposed action.

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

The area encompassed by the proposed drainage system modifications is not located within and would not affect environmentally sensitive areas. This area is not within the limits of a flood plain or tsunami inundation and

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the underlying soils are not erosion-prone. There are no geologically hazardous lands, estuaries, or coastal waters within or adjacent to the limits of the proposed action.

12. **The proposed project does not substantially affect scenic vistas and viewplanes identified in County or State plans or studies.**

The proposed action will not adversely affect scenic vistas and viewplanes.

13. **Does the proposed project require substantial energy consumption**

The proposed action involves the installation of drainage system improvements and, therefore, will not require substantial energy consumption activities.

Based on the foregoing findings, it is concluded that the proposed action will not result in any significant impacts.

# **Chapter VII**

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**Agencies, Organizations, and  
Individuals Consulted During the  
Preparation of the Supplemental  
Draft Environmental Assessment**

## **VII. AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED DURING THE PREPARATION OF THE SUPPLEMENTAL DRAFT ENVIRONMENTAL ASSESSMENT**

The following agencies, organizations, and individuals were consulted during the preparation of the Supplemental Draft Environmental Assessment. Comments received and responses to substantive comments are also included in this section.

1. Don Hibbard, Administrator  
State of Hawaii  
Department of Land and Natural  
Resources  
State Historic Preservation Division  
33 South King Street, 6th Floor  
Honolulu, HI 96813
2. Gary Gill, Director  
State of Hawaii  
Office of Environmental Quality  
Control  
235 South Beretania Street,  
Suite 702  
Honolulu, Hawaii 96813
3. David W. Blane, Director  
County of Maui  
Department of Planning  
250 South High Street  
Wailuku, HI 96793
4. Charles Jencks, Director  
County of Maui  
Department of Public Works  
and Waste Management  
200 South High Street  
Wailuku, HI 96793
5. Charles Knoebel, Executive Director  
Maui Family YMCA  
250 Kanaloa Avenue  
Kahului, HI 96732
6. Gladys and Issac Kanoa  
P.O. Box 330973  
Kahului, HI 96732-0973
7. Dr. William Kepler  
53 Puunene Avenue  
Kahului, HI 96732
8. Elaine Wender  
SR 93 Keanae  
Haiku, HI 96708



Maui  
Family  
YMCA

DEC 11 1997

December 4, 1997

Munekiyo & Arakawa, INC.  
305 High Street, Suite 104  
Wailuku, Hawaii, 96793

**SUBJECT: Keanae Baseyard - Drainage System Modifications  
Keanae, Maui, Hawaii; TMK 1 -1 - 02: 10**

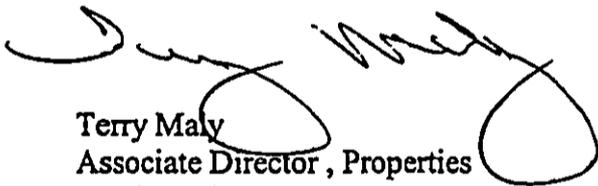
Dear Mr. Tadaki:

In reviewing the current Project Summary for the Maui Family YMCA, the input we can offer is the same as in the past. Please be advised that the Maui Family YMCA supports this project in its entirety. The revised plan which provides for a 30 inch covered drain line with 12 and 24 inch tributaries and inlet boxes both on the DOT Baseyard property as well as the YMCA Camp Keanae property, will result in a substantial improvement over the previously planned surface drainage for this project.

The project will have the benefit of alleviating the standing drainage waters at the curve on Hana Highway fronting these two properties and will further minimize erosion and standing water, which has plagued both properties historically.

We support the project and will work closely with the design engineers and contractor to assure an efficient and speedy installation of this drainage facility.

Sincerely,



Terry Maly  
Associate Director, Properties  
Maui Family YMCA

LINDA CROCKETT LINGLE

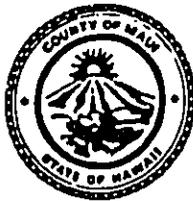
Mayor

CHARLES JENCKS

Director

DAVID C. GOODE

Deputy Director



COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
AND WASTE MANAGEMENT

200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

December 22, 1997

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

BRIAN HASHIRO, P.E.  
Highways Division

Solid Waste Division

Mr. Glenn Tadaki  
Munekiyo & Arakawa, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Tadaki:

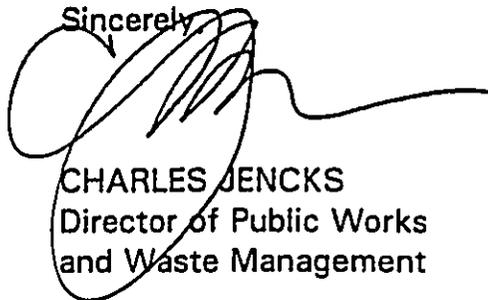
SUBJECT: EARLY CONSULTATION  
KEANAE BASEYARD - DRAINAGE SYSTEM IMPROVEMENTS  
STATE DEPARTMENT OF TRANSPORTATION

We reviewed the subject submittal and have the following comments.

1. A detailed and final drainage report and a Best Management Practices Plan (BMP) will be required to be submitted and approved with the grading plans prior to approval of grading permits. The drainage report should include hydrologic and hydraulic calculations and the schemes for disposal of runoff waters. It must comply with the provisions of the "Rules for Design of Storm Drainage Facilities in the County of Maui" and should provide verification that the grading and runoff water generated by the project will not have an adverse effect on adjacent and downstream properties. The BMP plan shall show the location and details of structural and non-structural measures to control erosion and sedimentation to the maximum extent practicable.

If you have any questions, please call David Goode at 243-7845.

Sincerely,



CHARLES JENCKS  
Director of Public Works  
and Waste Management

DG:co/mt

xc: Engineering Division  
Highways Division

S:\LUCA\CZM\DRAIN.



January 6, 1998

Charles Jencks, Director  
Department of Public Works  
and Waste Management  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793

SUBJECT: Keanae Baseyard - Drainage System Modifications  
Keanae, Maui, Hawaii; TMK 1-1-02: 10

Thank you for your letter of December 22, 1997 concerning the project's proposed drainage system modifications. On behalf of the State Department of Accounting and General Services, we would like to note that the proposed drainage system improvements will be designed in accordance with applicable regulatory design criteria to ensure that stormwater runoff will not have an adverse effect on adjacent and downstream properties. A detailed drainage report and Best Management Practices Plan will also be provided to the Department of Public Works and Waste Management for review and approval in connection with the submittal of grading plans for the proposed improvements.

Thank you again for providing us with your comments.

Very truly yours,

Glenn Tadaki, Planner

GT:tav

cc: Eric Nishimoto, Department of Accounting and General Services  
Bob Siarot, Department of Transportation  
Jun Sakauye, Thomas T. Agawa & Associates  
Harvey Hida, Hida, Okamoto & Associates, Inc.

sgawa\keanaejencks.001

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

January 12, 1998

Mr. David Blane, Director  
Department of Planning  
250 South High Street  
Wailuku, Hawaii 96793

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

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT  
PROGRAM

AQUATIC RESOURCES  
CONSERVATION AND

RESOURCES ENFORCEMENT  
CONVEYANCES

FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION

DIVISION

LAND DIVISION

STATE PARKS

WATER AND LAND DEVELOPMENT

LOG NO: 20827 ✓  
DOC NO: 9801BD01

Dear Mr. Blane:

**SUBJECT: Chapter 6E-8 Historic Preservation Review of a Revised EA for Drainage  
System Modifications at the DAGS Baseyard  
Keanae Ahupua`a, Hana District, Island of Maui  
TMK 1-1-02: 10**

This letter is a Historic Preservation review of a revised Environmental Assessment for drainage system modifications at the DAGS baseyard in Keanae Ahupua`a. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field check was conducted of the subject property.

The subject property seems likely to have once been the location of pre-Contact agricultural fields and perhaps scattered housing. Twentieth century construction of the present DAGS baseyard, YMCA camp, and associated landscaping has since altered the landscape, making it unlikely that any historic sites remain intact. We therefore find the proposed construction project to have "no effect" on historic sites.

In the event that unrecorded historic remains (i.e. architecture, artifacts, or bones) are inadvertently uncovered during construction along the road, all work should cease in the vicinity and the contractor should immediately contact the State Historic Preservation Division.

If you have any questions please contact Boyd Dixon at 243-5169.

Aloha

  
DON HIBBARD, Administrator  
State Historic Preservation Division

BD:jen

cc. Ralph Nagamine, Maui County Department of Public Works (fax: 243-7972)  
Glenn Tadaki, Munekiyo and Arakawa Inc (fax: 244-8729)

# ***Chapter VIII***

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***Letters Received During  
the Supplemental Draft  
Environmental Assessment  
Public Comment Period  
and Responses to  
Substantive Comments***

**VIII. LETTERS RECEIVED DURING THE SUPPLEMENTAL DRAFT ENVIRONMENTAL ASSESSMENT PUBLIC COMMENT PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS**

The Notice of Availability of the Supplemental Draft Environmental Assessment (EA) appeared in the February 8, 1998 edition of the Environmental Notice. Copies of the Supplemental Draft EA were distributed to the agencies, organizations, and individuals that were consulted during the preparation of the Supplemental Draft EA, as well as the Hana Public and School Library. The 30-day public comment period on the Supplemental Draft EA expired on March 10, 1998.

Pursuant to the requirements of the environmental review process, comments received during the Supplemental Draft EA public comment period and responses to substantive comments are included in this section.

BENJAMIN J. CAYETANO  
GOVERNOR



FEB 27 1998

GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

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

February 26, 1998

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

Attention: Eric Nishimoto

Dear Mr. Matsuoka:

Subject: Supplemental Draft Environmental Assessment (EA) for Keanae  
Baseyard Renovations

The total project cost is not given. Please disclose all state or county funds involved,  
including any federal funds flowing through the state or county.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary Gill".

GARY GILL  
Director

c: Glenn Tadaki



March 6, 1998

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

**SUBJECT: Supplemental Draft Environmental Assessment (EA) for Keanae Baseyard Renovations**

Dear Mr. Gill:

Thank you for your letter of February 26, 1998 concerning the proposed project. On behalf of the State Department of Accounting and General Services, we would like to note that the proposed project involves the use of State funds. While the total estimated project cost (referenced in the project's Final EA) remains unchanged at \$1.3 million, construction of the project is now estimated to commence during the second half of 1998.

Thank you again for commenting on the proposed project.

Very truly yours,

Glenn Tadaki, Planner

GT:tav

cc: Eric Nishimoto, Department of Accounting and General Services  
Jun Sakauye, Thomas Agawa & Associates  
Harvey Hida, Hida, Okamoto & Associates  
Bob Siarot, Department of Transportation

agawa/keanae/gill.003

# ***Chapter IX***

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***List of Permits  
and Approvals***

## **IX. LIST OF PERMITS AND APPROVALS**

The following permits and approvals will be required prior to the implementation of the proposed modifications.

### **County of Maui**

1. State Land Use Special Use Permit (SUP)
2. Special Management Area (SMA) Use Permit
3. Grading Permit
4. Building Permit

# ***References***

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References

Munekiyo & Arakawa, Inc., Final Environmental Assessment, Keanae Baseyard Renovations, March 1997.

# Appendices

# ***Appendix A***

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***Preliminary Drainage  
Report (October 1997)***

**PRELIMINARY DRAINAGE REPORT**

for

**D.O.T. MAUI DISTRICT  
KEANAE BASEYARD  
Hana, Maui, Hawaii**

Tax Map Key: 1-1-02:10  
D.A.G.S. Job No. 25-29-7632  
HO&A Job No. 94-1059

Prepared By:

**HIDA, OKAMOTO & ASSOCIATES, INC.  
Consulting Engineers  
The Commerce Tower Suite 915  
1440 Kapiolani Boulevard  
Honolulu, Hawaii 96814**

October 1997



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION

*[Handwritten Signature]*  
Signature 10-01-97

**D.O.T. MAUI DISTRICT  
KEANAE BASEYARD  
Preliminary Drainage Report**

**GENERAL DESCRIPTION**

The project site is located in Keanae, approximately 500 feet north of the intersection of Hana Highway and Keanae Homestead Road. The location of the project site is shown in Exhibit A. Currently, the project site is occupied by one trailer located near the Hana Highway connection, and gravel parking area and two wooden buildings located in the center of the property, and the majority of the site is covered by heavy vegetation. The existing driveway to the site from Hana Highway will be used as the main two-way driveway.

The subject project will consist of demolition of the existing structures and development of two new structures consisting of an office building and truck storage building. A.C. pavement parking/driveway, landscaping and above-ground fuel/tank and dispenser will also be developed. The total amount of lot coverage by buildings will be approximately 4,380 sq. ft. or little over 3 percent of the 3.096 acre lot. In addition to the building elements, the project will provide approximately 20,600 sq. ft. of paved area for parking and driveway. The total project area will consist of approximately 0.574 acres or 18.5 percent of the lot area.

**EXISTING DRAINAGE CONDITION**

The topographic survey map of the existing site and the USGS Keanae Quad Map (7.5 Minute Series) was used to determine the tributary areas for the drainage flow. Analysis was then performed for one-hour for a 50-year storm event.

The tributary areas indicate that the majority of the stormwater runoff sheet flow toward north direction and to the Keanae Homestead Road. The stormwater runoff within the YMCA site sheet flow toward north-west direction and to the sea.

The results of the analysis indicates that there is a total of 4.12 cubic feet per second (cfs) of stormwater runoff from the project area and a total of 34.44 cfs for the tributary area.

**PROPOSED DRAINAGE CONDITIONS**

The proposed layout will retain the basic drainage pattern. As with the existing conditions, the majority of the runoff within the project site will flow toward north direction.

The existing drainage inlet within Hana Highway situated across from the project site will be re-constructed and a new enlarged pipe will be connected to the proposed on-site underground drainage system. The surface runoff generated onsite will be collected by four inlets and directed into the on-site drainage system. The onsite runoff, as well as the

offsite runoff collected by the Hana Highway inlet will then be piped into a new underground drain system which runs along the existing YMCA service road and across an open, grassed area which extends from the service road to a new headwall located on a lower portion of the YMCA property. Existing stormwater runoff generated on the YMCA site will be collected by three new inlets constructed over the new underground drain system. Stormwater will then be discharged at the new headwall located on the lower portion of the YMCA property into a natural depressed area where it will percolate into the ground.

Analysis was performed on the site using the proposed conceptual grading plan to determine the new tributary areas. The results of the analysis for one-hour of a 50-year storm indicates that there will be approximately 8.70 cfs of stormwater runoff generated from the project area, an increase of 4.58 cfs. The total runoff for the entire tributary area will be increased to 41.68 cfs.

### ANALYSIS RESULTS

The project proposes to decrease the area of open space on the site, therefore there will be less permeable area. This decrease in permeability increases the amount of stormwater runoff generated by the project area, thus the overall increase in stormwater runoff. The results of the analysis also indicates, that there will be an increase of 4.58 cfs runoff. This additional runoff due to the increased impermeable surface area will be mitigated by installing approximately 200 lin.ft. of perforated drain pipe for the new drainage system. The required rate of the perforation would be 0.023 cfs/ft which is within the acceptable rate. The new drainage system will convey the stormwater runoff from the tributary areas to a new discharge headwall located on a lower portion of the YMCA property. The runoff from the headwall will then flow into an existing depressed area which acts as a natural detention basin and then percolate into the ground.

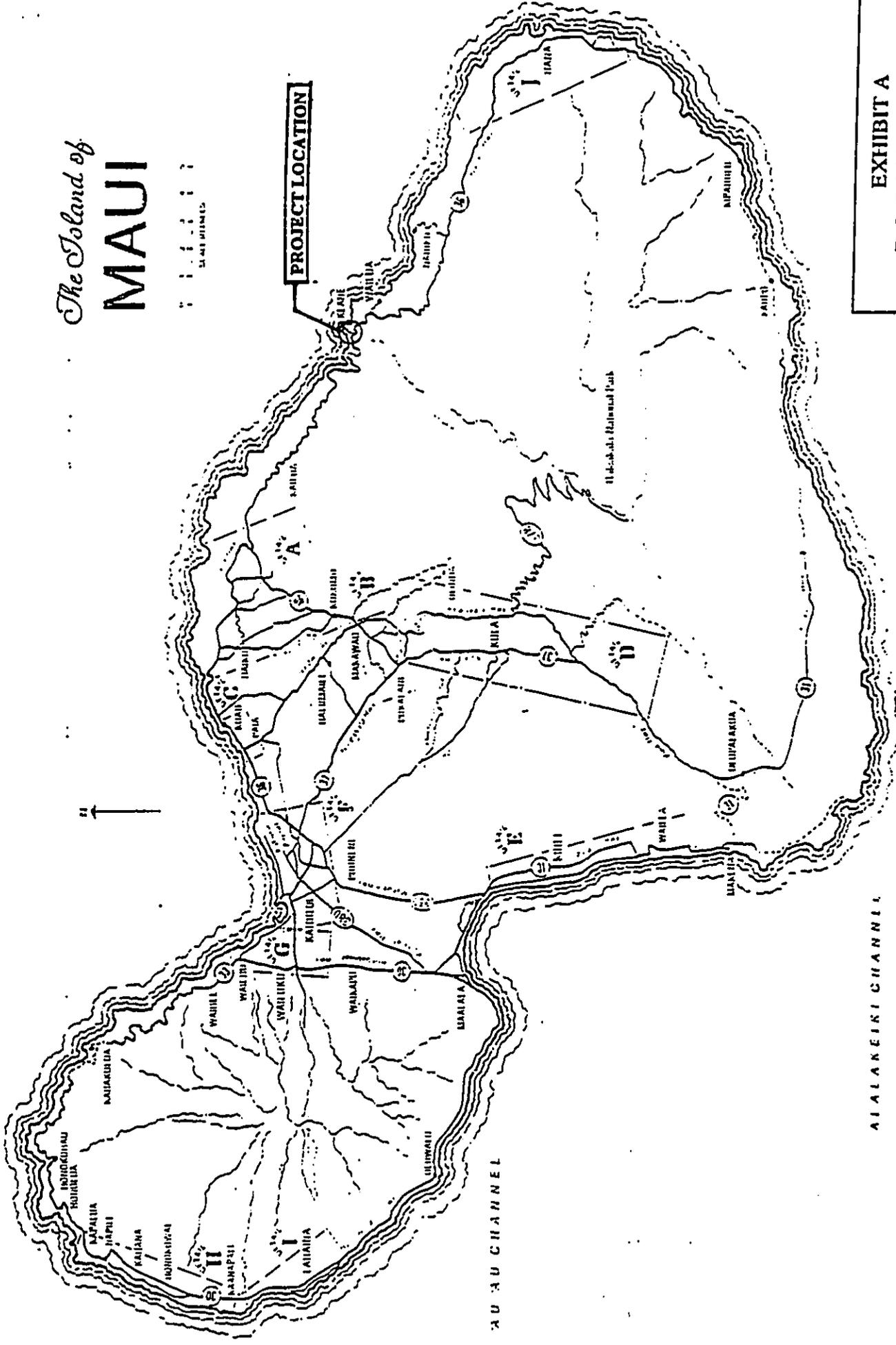
### CONCLUSION

There will be an increase in stormwater runoff generated by the development. However, the overall drainage condition of the area will be improved by the construction of the underground drainage system, and since stormwater runoff into down stream properties will be limited to the pre-construction rate, we do not anticipate any adverse effects to downstream properties or the surrounding area.

*The Island of*  
**MAUI**

1 1/2" = 1 MILE

PAILOLO CHANNEL



AU'AU CHANNEL

AI'ALAKEIKI CHANNEL

EXHIBIT A
D.O.T. MAUI DISTRICT
KEANAE BASEYARD
Hana, Maui
LOCATION MAP

\* 1970 Revised 12/23/1981  
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RUN-OFF CALCULATIONS

HIDA, OKAMOTO & ASSOCIATES, INC.

Project: D.O.T. MAUI DISTRICT - KEANAE BASE YARD  
 Hana, Maui  
 Tax Map Key:1-1-02:10

Date: 10/01/97  
 By: HKH/CYO

INLETS DESIGN WORKSHEET PROPOSED

Tm = 50 Years		One-Hour Rainfall = 6.0 Inches						Q=RCIA	
DRAINAGE AREA	Ground Character	Overland Flow Time			R Corr Factor	C	T	A (Acres)	Q (CFS)
		Length (Feet)	Slope (F/FT)	Tc (Min)					
B-1	AC Pavement/Roof	185	0.030	4.5	2.80	0.91	6.00	0.401	6.13
B-2	AC Pavement/Roof	130	0.027	5.0	2.70	0.91	6.00	0.154	2.27
B-3	Roof	18	0.200	3.0	2.80	0.95	6.00	0.018	0.30
B-4	Misc. Vegetation	500	0.320	10.5	2.25	0.50	6.00	2.530	17.08
B-5*	Misc. Vegetation	400	0.200	10.5	2.25	0.50	6.00	0.913	6.16
B-6*	Misc. Vegetation	400	0.200	10.5	2.25	0.50	6.00	0.548	3.70
B-7*	Misc. Vegetation	400	0.200	10.5	2.25	0.50	6.00	0.365	2.48
B-8	Vegetation/A.C.Pavement	500	0.100	7.2	2.55	0.65	6.00	0.360	3.58
Total								5.290	41.68

\* Tributary areas B-5, B-6, & B-7 includes areas B-1, B-2, & B-3 (project areas)  
 The areas shown for areas B-5, B-6, & B-7 are the effective areas, exclusive of areas B-1, B-2, & B-3.

HIDA, OKAMOTO & ASSOCIATES, INC.

Project: D.O.T. MAUI DISTRICT - KEANAE BASE YARD  
 Hana, Maui  
 Tax Map Key: 1-1-02:10

Date: 10/01/97  
 By: HKH/CYO

INLETS DESIGN WORKSHEET EXISTING

Tm = 50 Years		One-Hour Rainfall = 6.0 Inches						CERCIA	
DRAINAGE AREA	Ground Character	Overland Flow Time			R Corr Factor	C	I	A (Acres)	Q (CFS)
		Length (Feet)	Slope (F/F)	Tc (Min)					
A-1	Landscape/Trailer	40	0.050	7.5	2.55	0.44	6.00	0.067	0.45
A-2	Gravel/Rock/Conc. Pad.	175	0.020	10.5	2.25	0.60	6.00	0.337	2.73
A-3	Lawn	140	0.029	10.2	2.30	0.40	6.00	0.170	0.94
A-4	Misc. Vegetation	500	0.320	10.5	2.25	0.50	6.00	2.530	17.08
A-5*	Misc. Vegetation	400	0.200	10.5	2.25	0.50	6.00	1.828	9.66
A-6	Vegetation/A.C. Pavement	500	0.100	7.2	2.55	0.65	6.00	0.360	3.58
							Total	3.464	34.44

\* Tributary area A-5 = 2.4 acres (which includes areas A-1, A-2, A-3)  
 Effective area of A-5 = 1.828 acres (2.4 acre - (A-1) - (A-2) - (A-3))

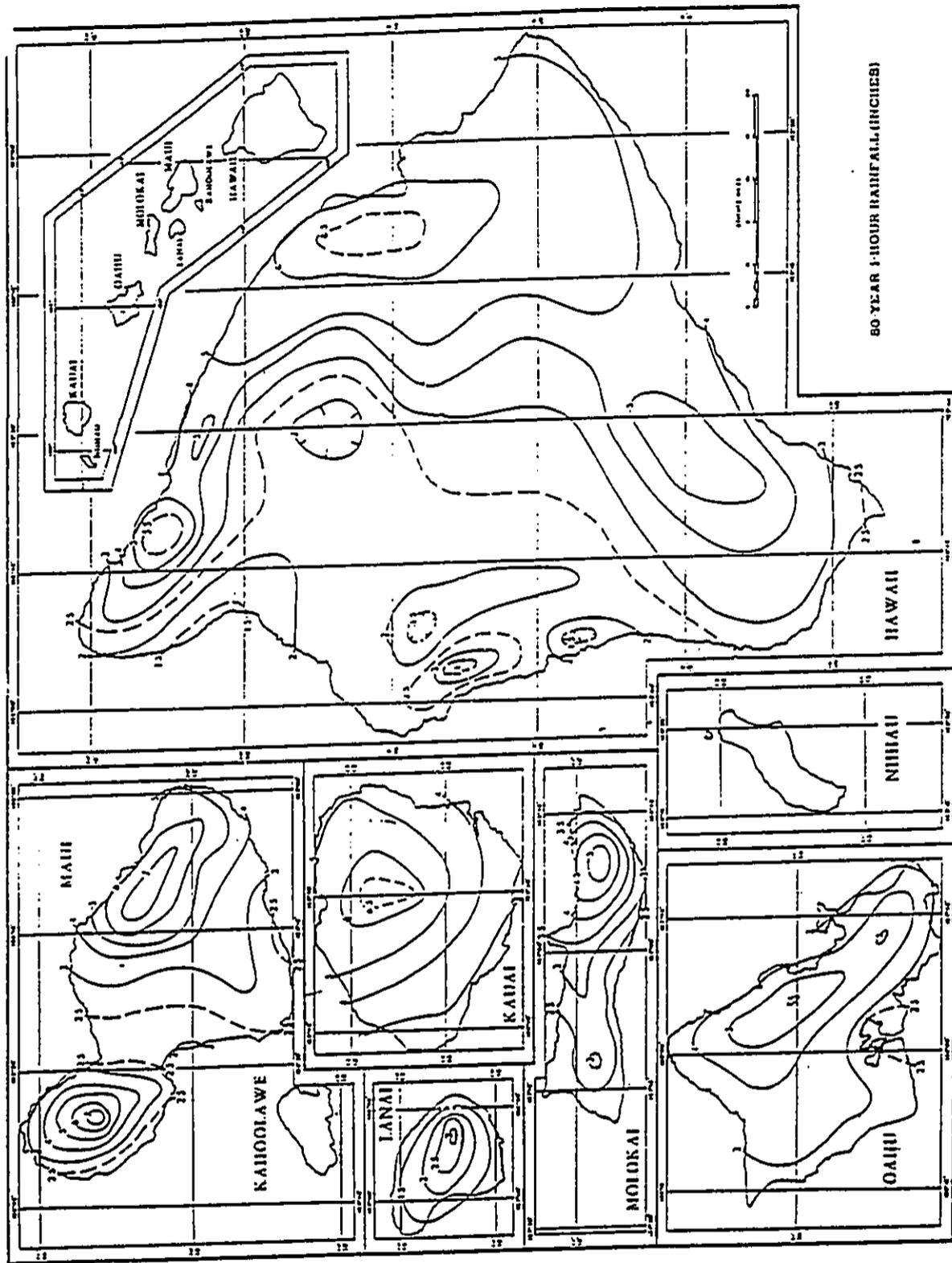
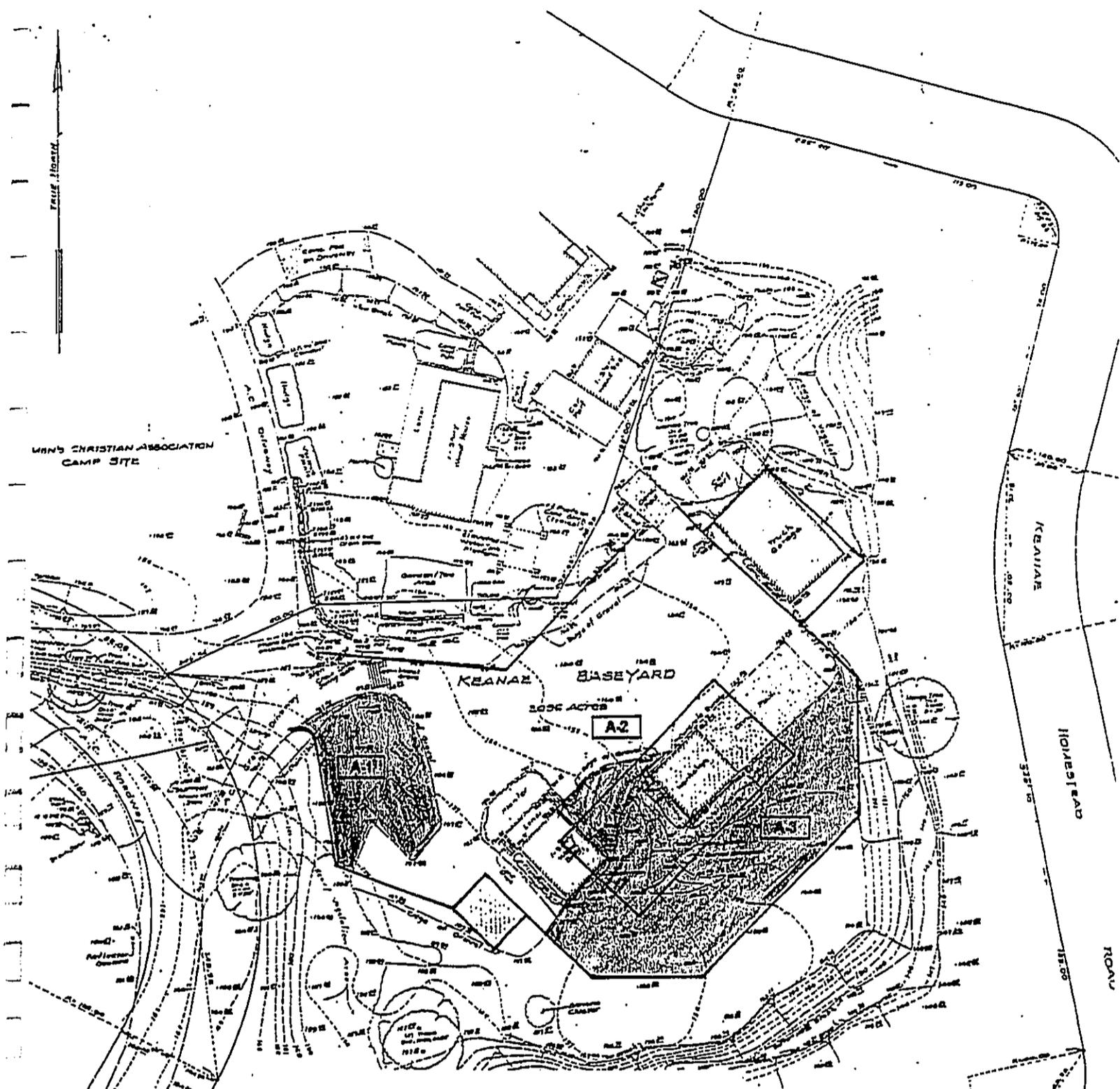


FIGURE 20.--60-yr. 1-hr. rainfall (in.)

156887 O-42

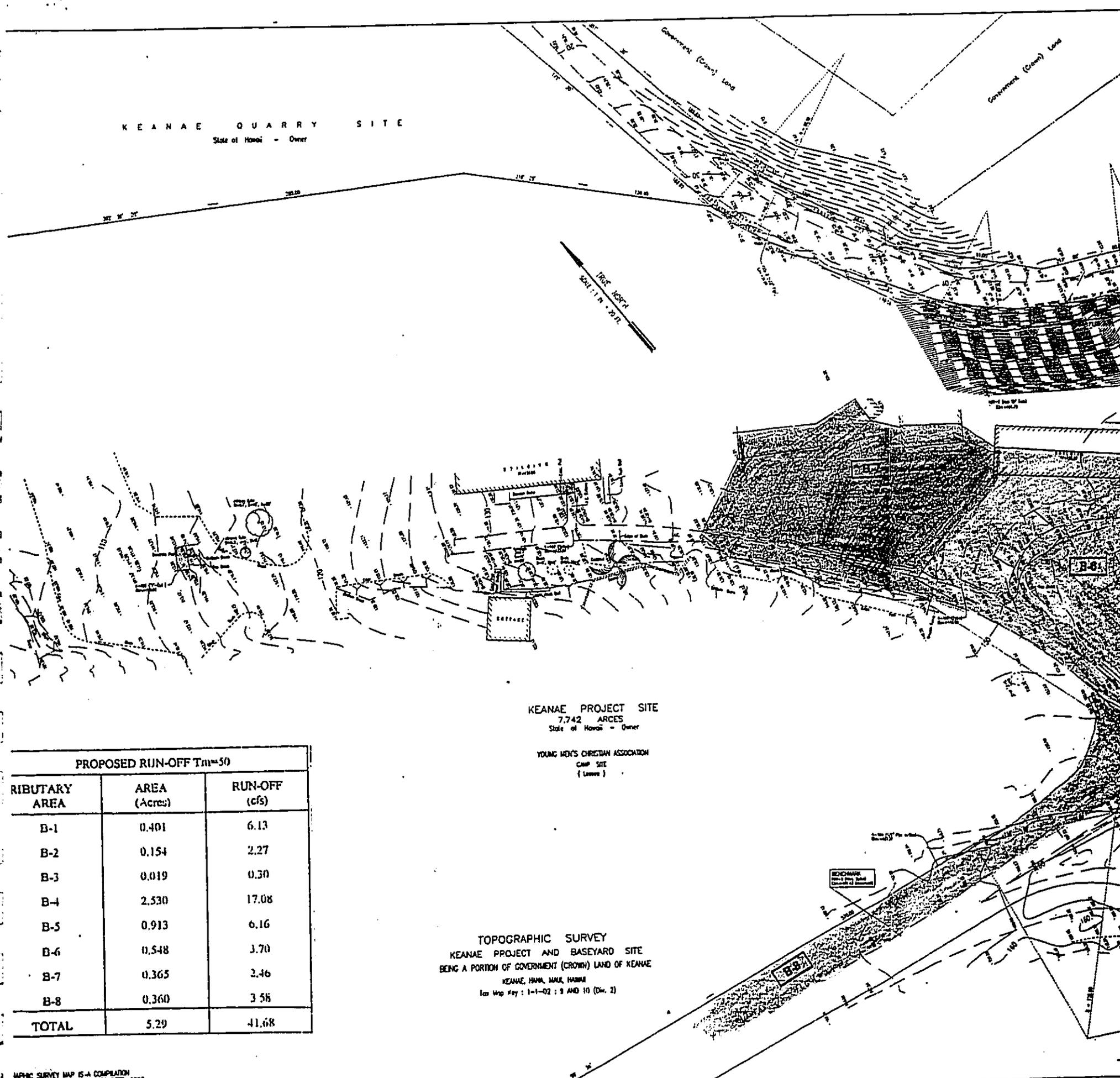


EXISTING RUN-OFF $T_m=50$		
TRIBUTARY AREA	AREA (Acres)	RUN-OFF (cfs)
A-1	0.067	0.45
A-2	0.337	2.73
A-3	0.170	0.94
A-4	2.530	17.08
A-5	1.826	9.66
A-6	0.36	3.58
<b>TOTAL</b>	<b>5.29</b>	<b>34.44</b>

**EXHIBIT B**  
**D.O.T. MAUI DISTRICT**  
**KEANAE BASEYARD**  
**Hana, Maui**  
**RUN-OFF MAP (EXISTING-ON SITE)**  
**SCALE: 1"=50'**



KEANAE QUARRY SITE  
State of Hawaii - Owner



KEANAE PROJECT SITE  
7,742 ACRES  
State of Hawaii - Owner

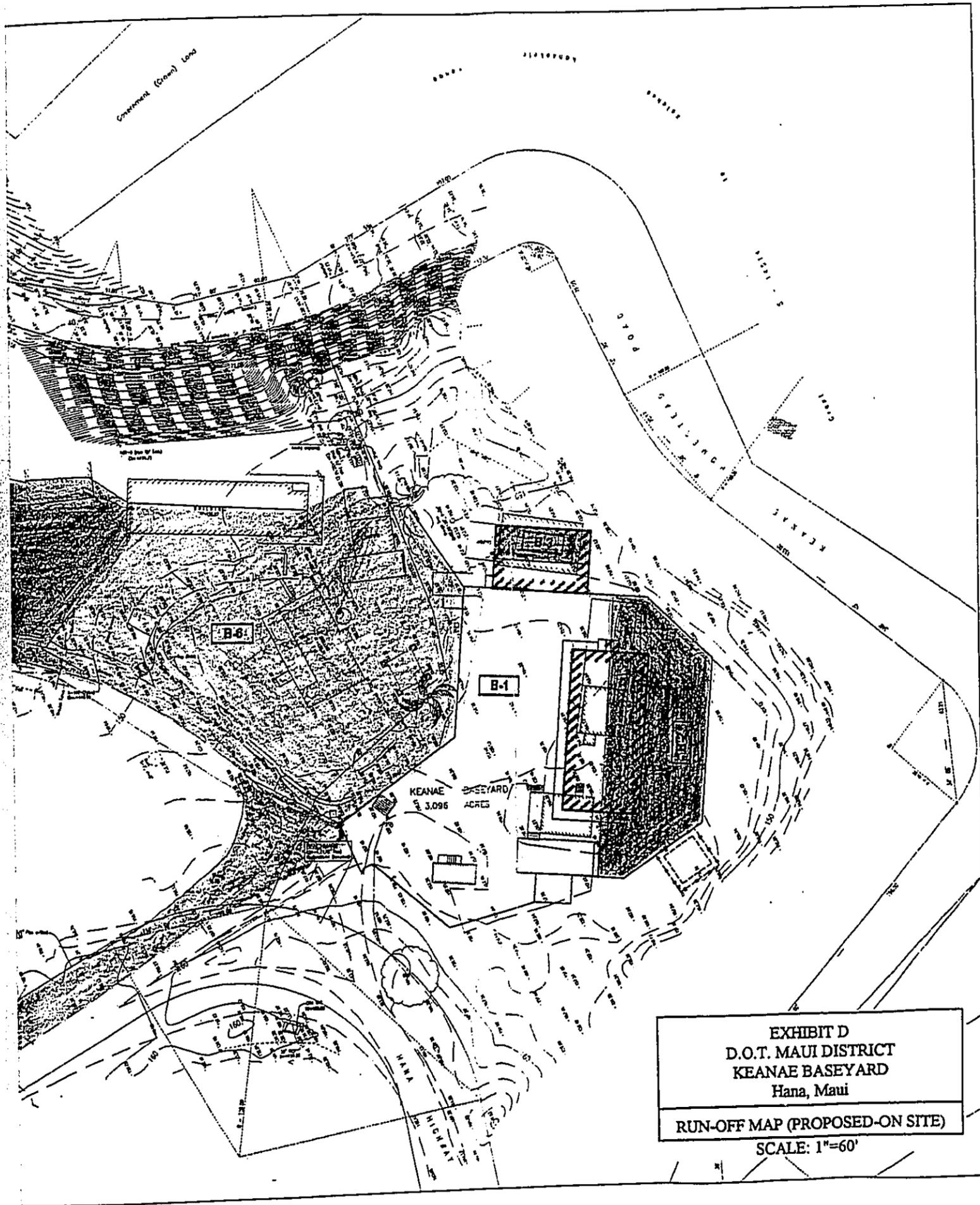
YOUNG MEN'S CHRISTIAN ASSOCIATION  
CAMP SITE  
(Lease)

TOPOGRAPHIC SURVEY  
KEANAE PROJECT AND BASEYARD SITE  
BEING A PORTION OF GOVERNMENT (CROWN) LAND OF KEANAE  
KEANAE, HAWAII, HONOLULU  
Top Map Key: 1-1-02: 9 AND 10 (Rev. 2)

PROPOSED RUN-OFF  $T_m=50$

TRIBUTARY AREA	AREA (Acres)	RUN-OFF (cfs)
B-1	0.401	6.13
B-2	0.154	2.27
B-3	0.019	0.30
B-4	2.530	17.08
B-5	0.913	6.16
B-6	0.548	3.70
B-7	0.365	2.46
B-8	0.360	3.58
TOTAL	5.29	41.68

TOPOG. SURVEY MAP IS A COMPILATION  
SURVEYS FROM OCT. 1994 TO SEPT. 1997.



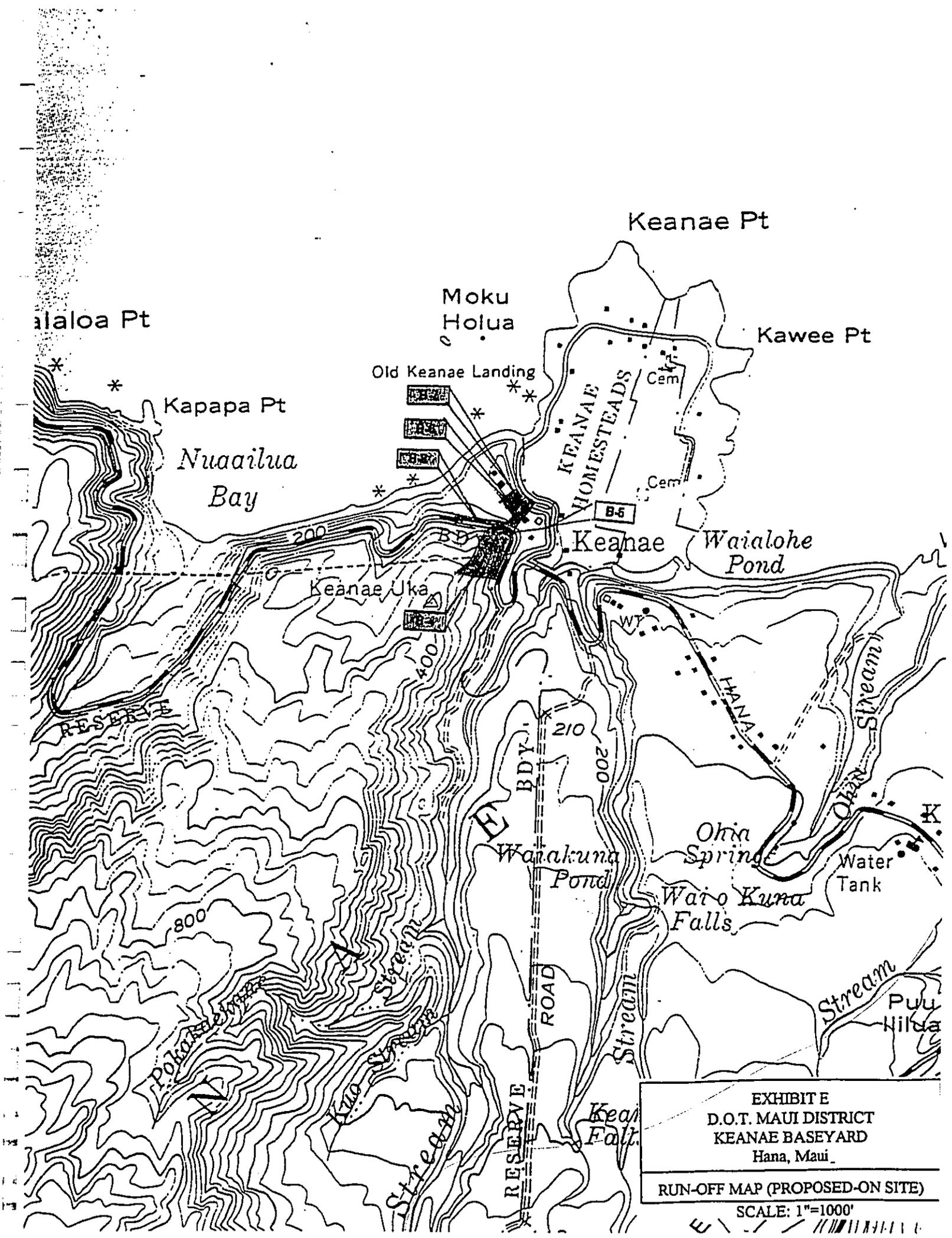


EXHIBIT E  
 D.O.T. MAUI DISTRICT  
 KEANAE BASEYARD  
 Hana, Maui

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RUN-OFF MAP (PROPOSED-ON SITE)  
 SCALE: 1"=1000'

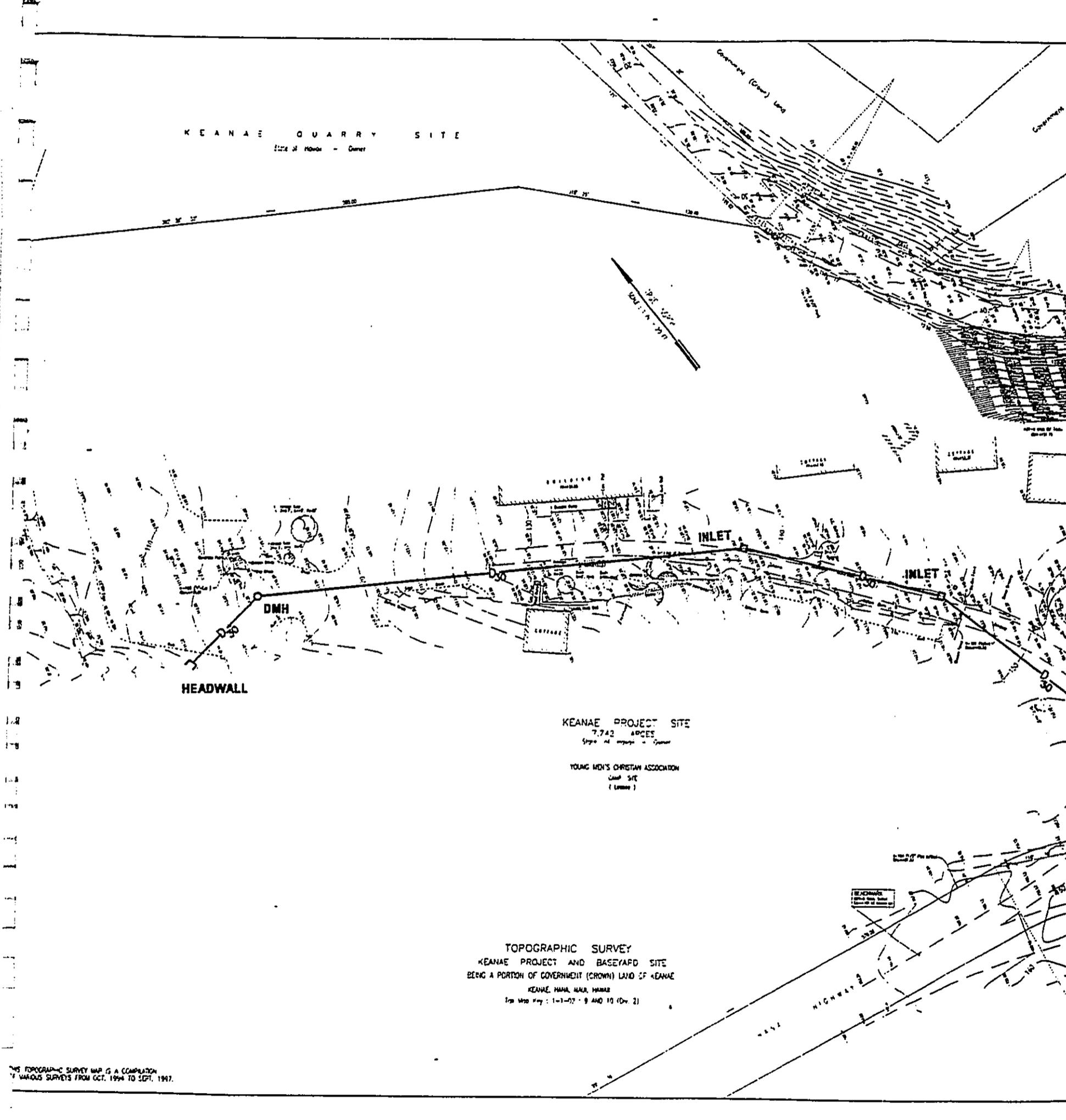
KEANAE QUARRY SITE  
Site of Hoopa - Owner

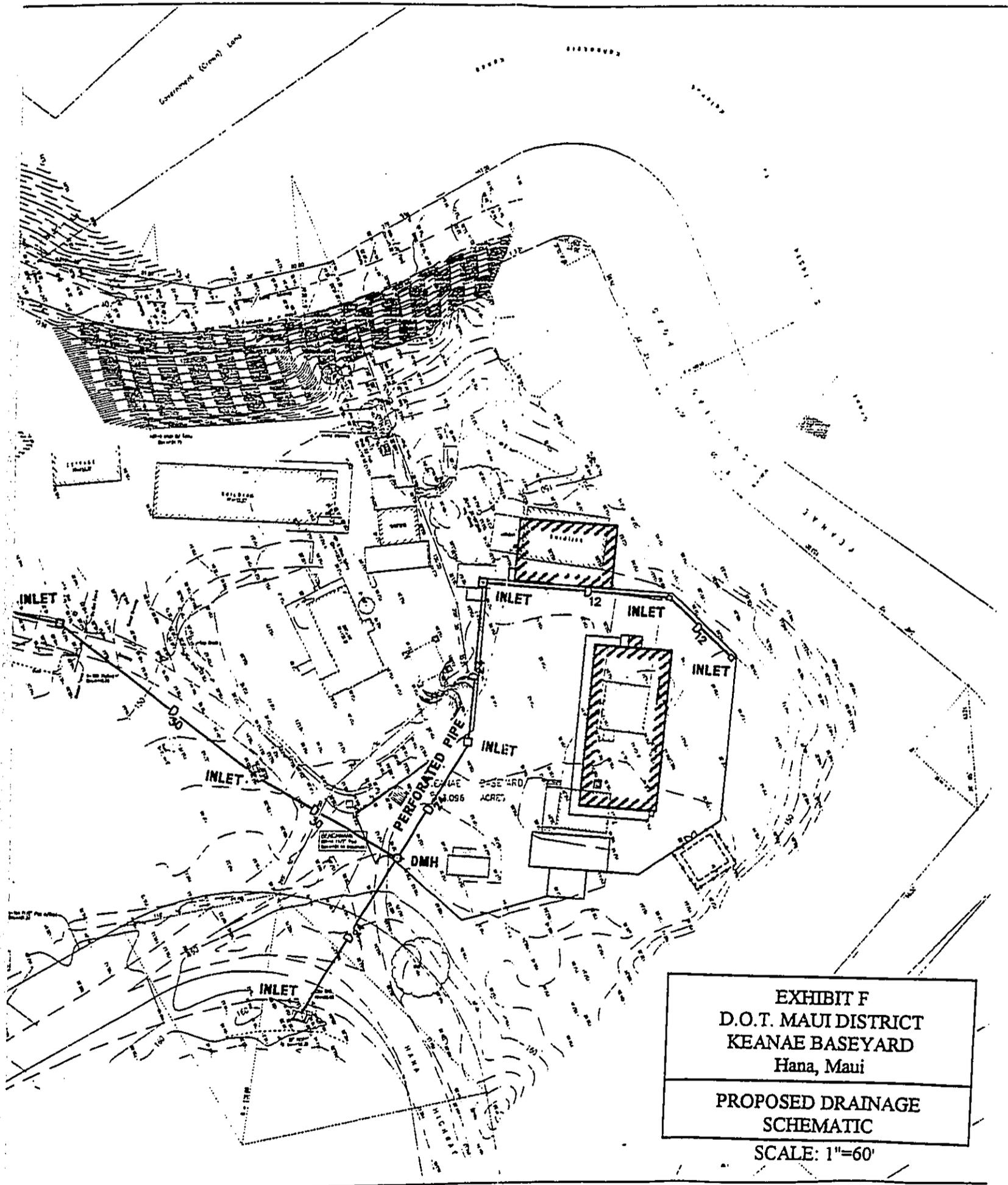
KEANAE PROJECT SITE  
7,742 ACRES  
Site of Hoopa - Owner

YOUNG MEN'S CHRISTIAN ASSOCIATION  
Camp Site  
(Lumber)

TOPOGRAPHIC SURVEY  
KEANAE PROJECT AND BASEYARD SITE  
BEING A PORTION OF GOVERNMENT (CROWN) LAND OF KEANAE  
KEANAE, HAWAII, HONOLULU  
Top Map Key: 1-1-57 - 9 AND 10 (Dv. 2)

THIS TOPOGRAPHIC SURVEY MAP IS A COMPLETION  
OF VARIOUS SURVEYS FROM OCT. 1944 TO SEPT. 1947.

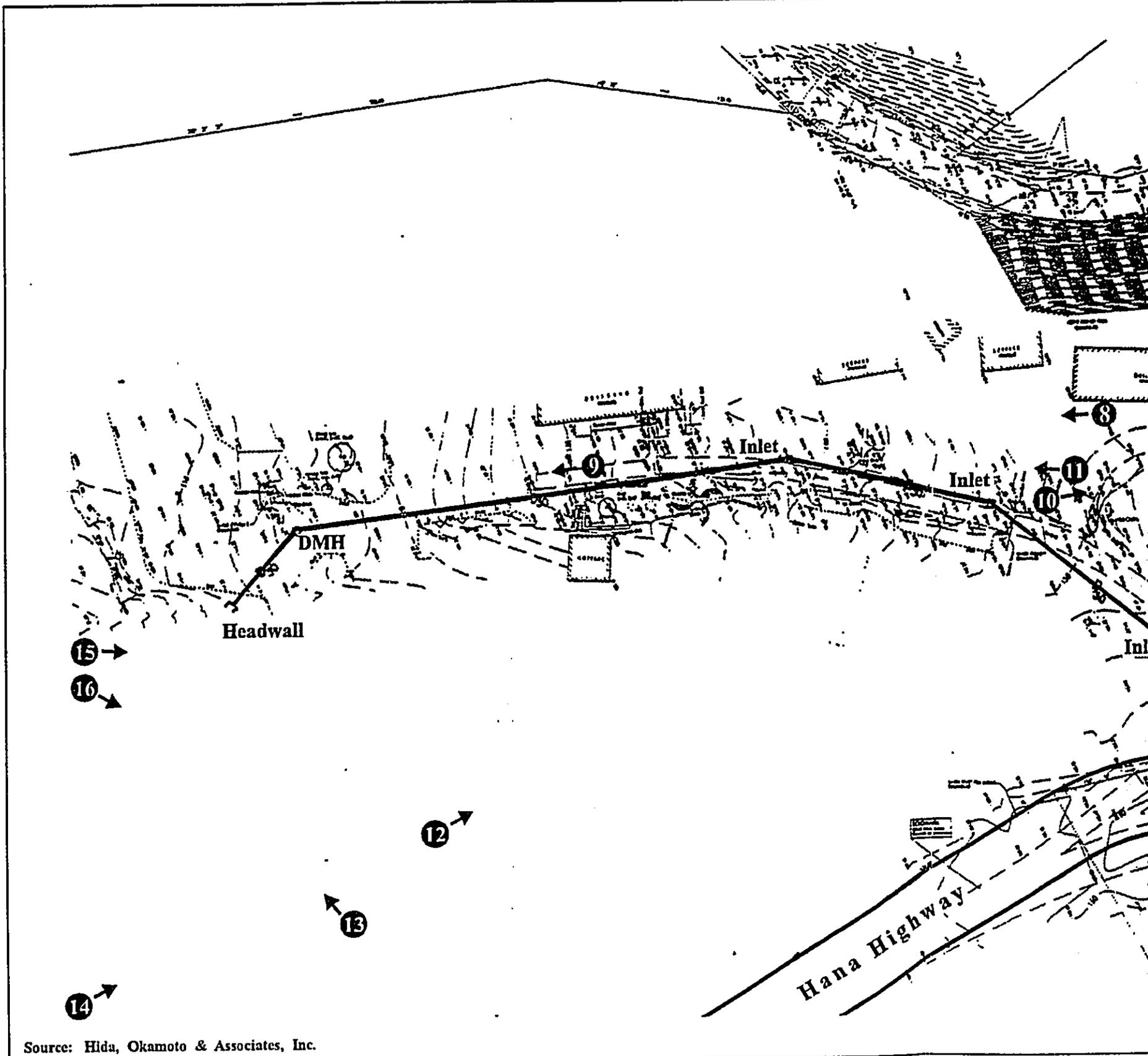




# ***Appendix B***

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***Site Photographs and  
Photo Reference Map***

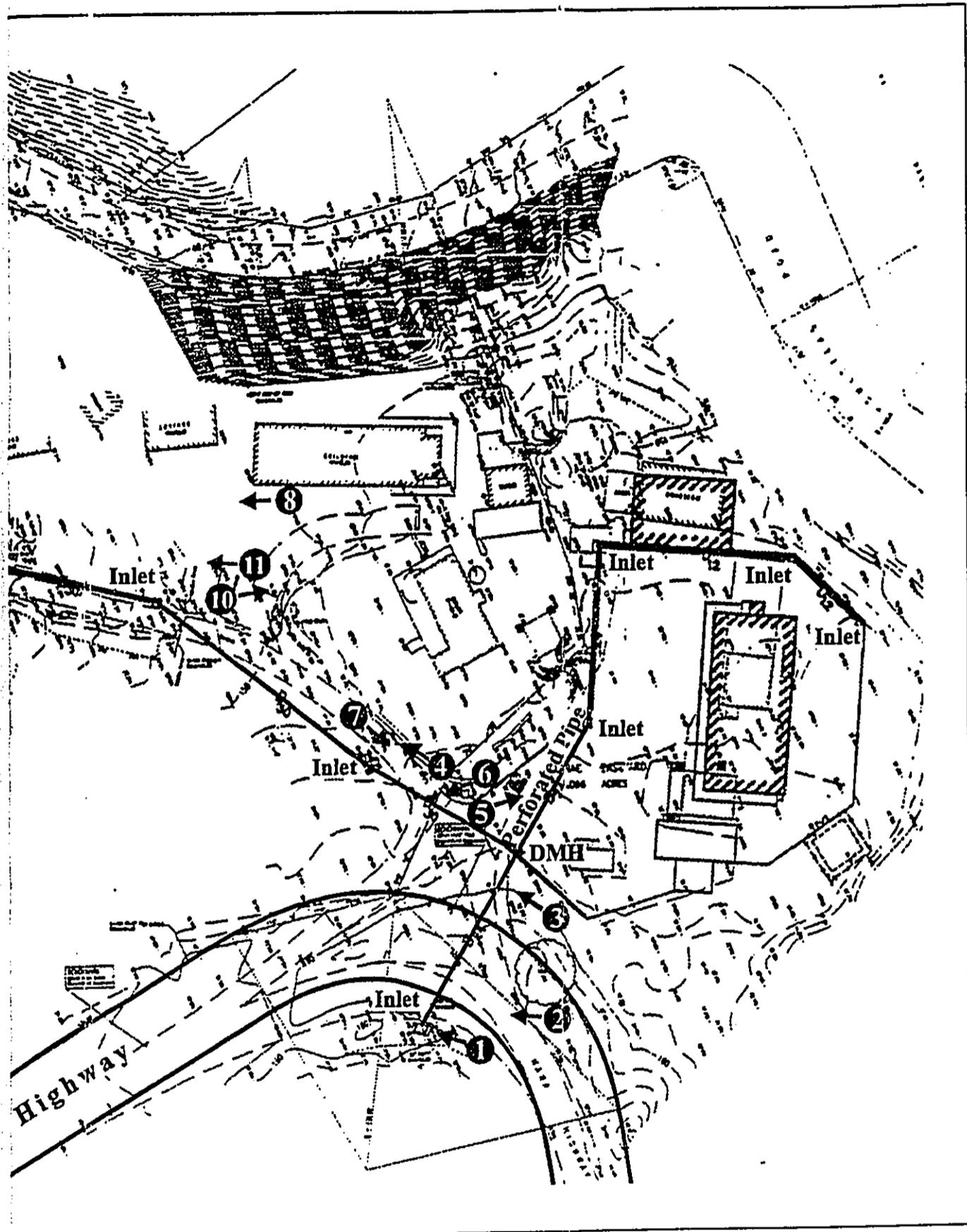


Source: Hida, Okamoto & Associates, Inc.

## Keanae Baseyard Renovations Photographic Reference Map



Prepared for: State of Hawaii, Dept. of Accounting and General Services



Renovations  
 rence Map



NOT TO SCALE

DOCUMENT CAPTURED AS RECEIVED



Photo Location No. 1

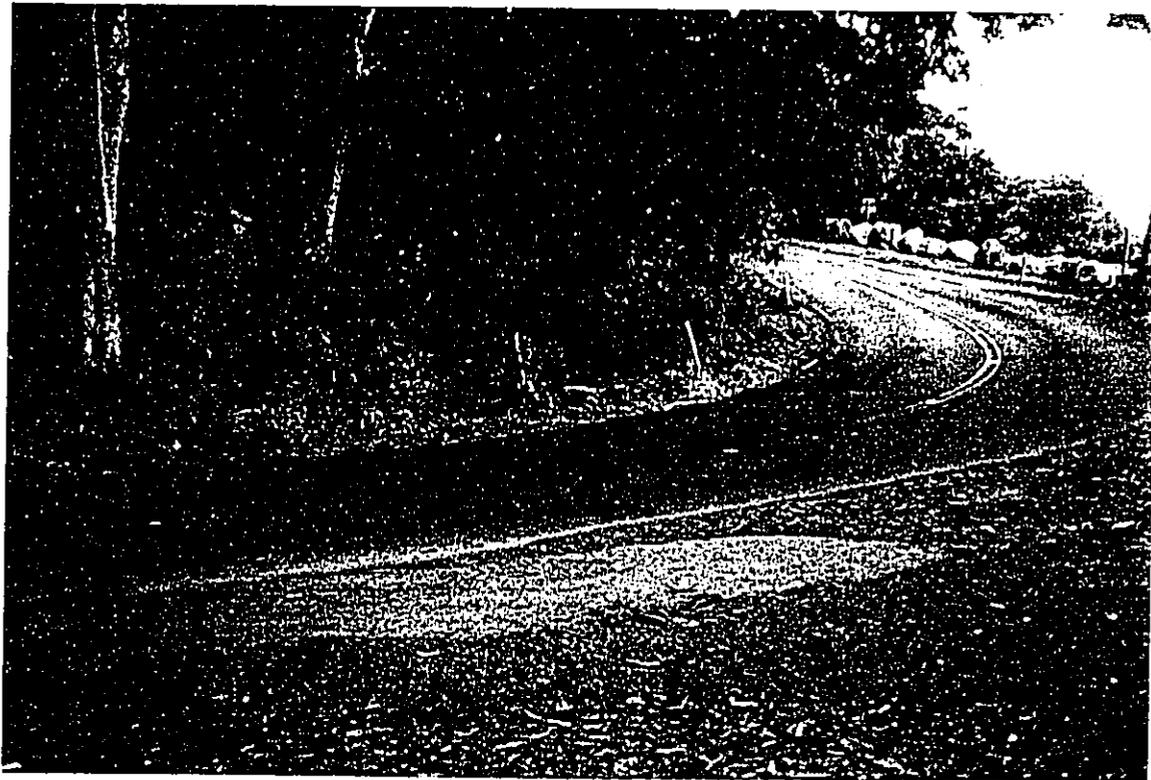


Photo Location No. 2

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Photo Location No. 3



Photo Location No. 4

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Photo Location No. 5



Photo Location No. 6

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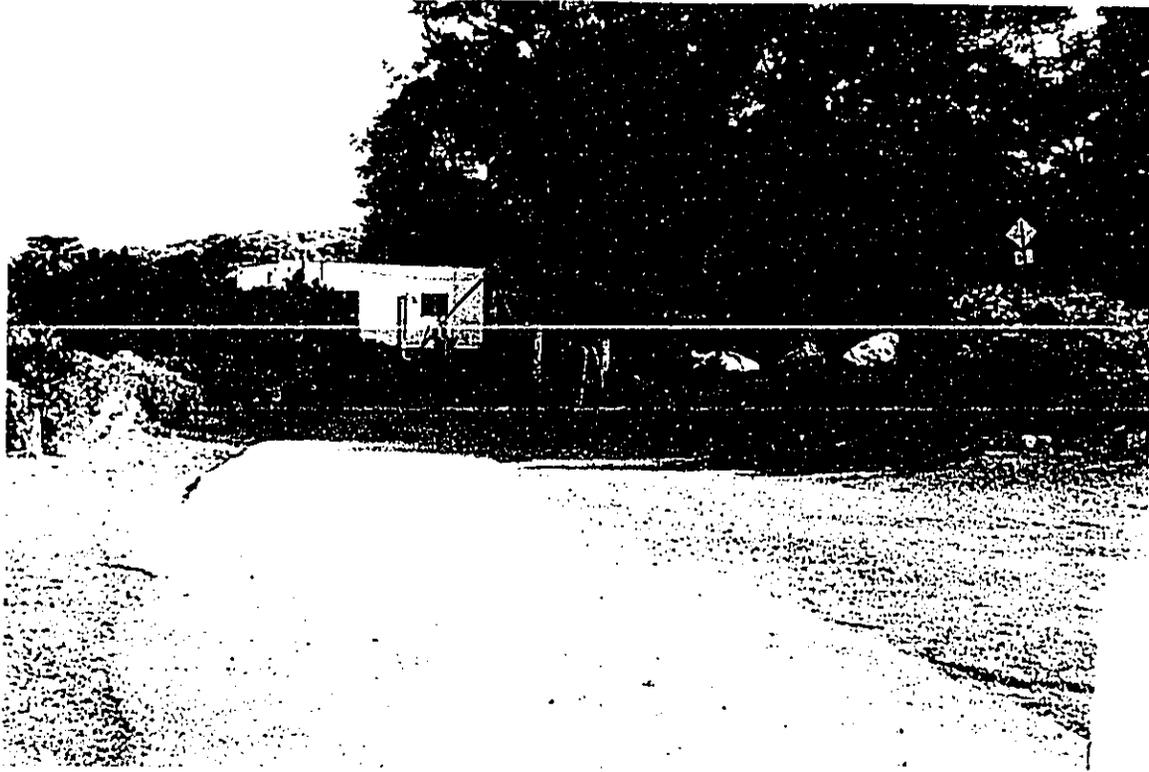


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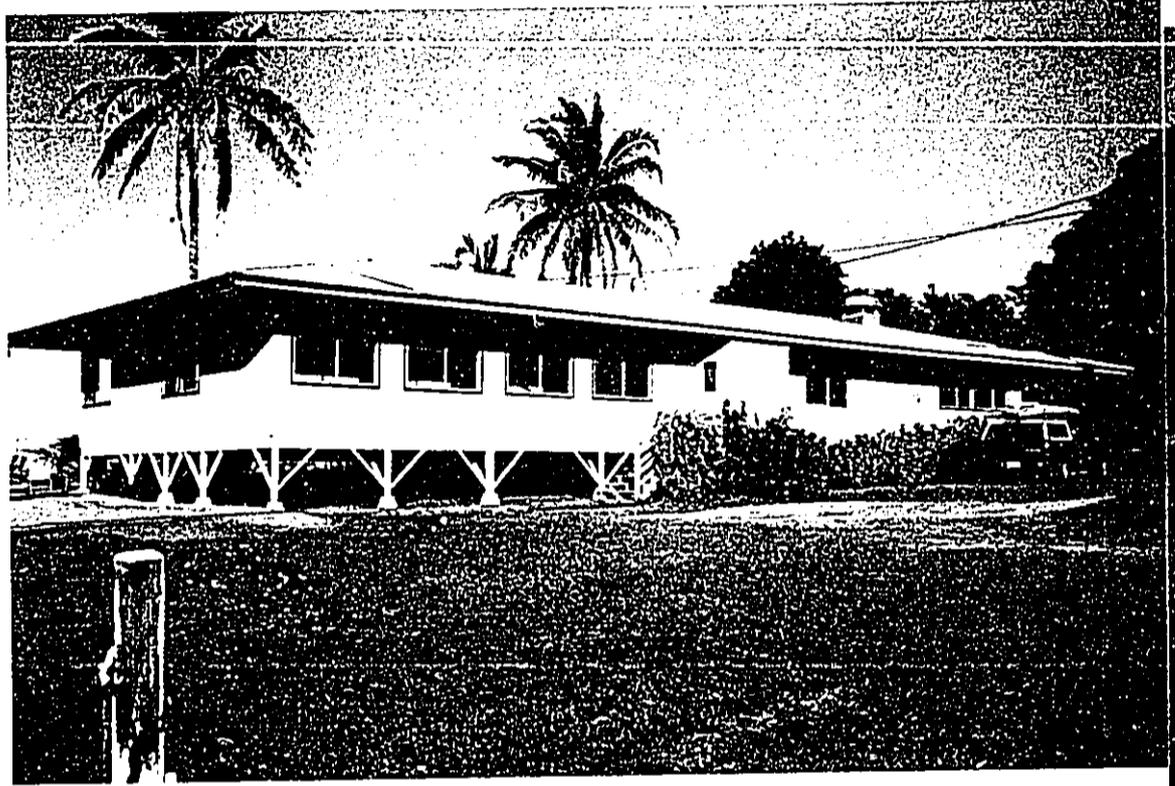
Photo Location No. 8

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Photo Location No. 9

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**Photo Location No. 10**



**Photo Location No. 11**

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**Location No. 10**



**Location No. 11**

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**Photo Location No. 12**



**Photo Location No. 1**

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**Location No. 12**

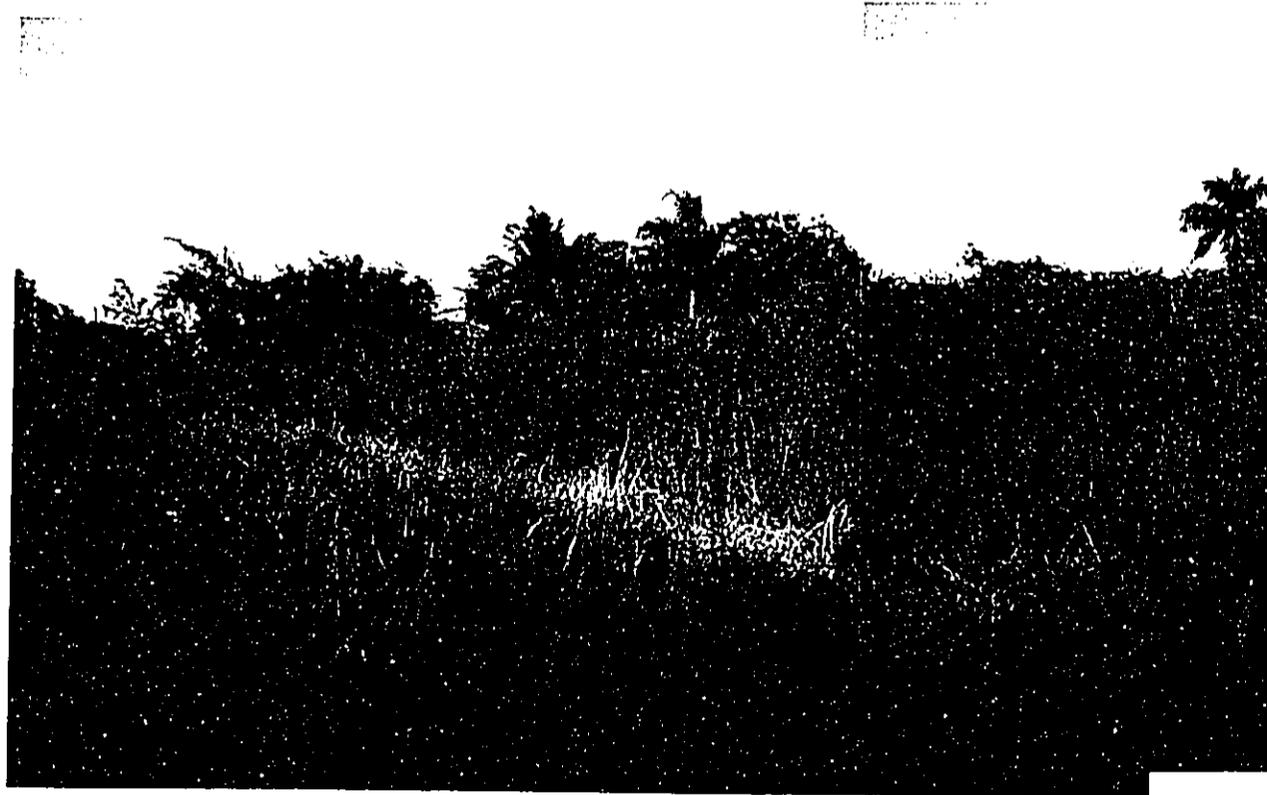


**o Location No. 13**

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**Photo Location No. 14**



**Photo Location No. 15**

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**Location No. 14**



**Location No. 15**

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**Photo Location No. 16**

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**Location No. 16**

# ***Appendix C***

---

***Letter from C. Earl Stoner, Jr.  
Dated October 21, 1997  
Commenting on the Preliminary  
Drainage Report (October 1997)***



Maui  
Family  
YMCA

October 21, 1997

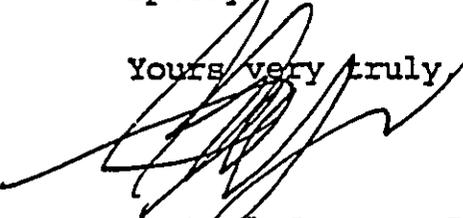
Gentlemen:

I have been asked by the Maui Family YMCA to review the report from Hida Okamoto & Associates for the preliminary drainage plan for the DOT Maui District Keanae Baseyard. The project bears the dags job number 25-29-7632. Please be advised that the Maui Family YMCA supports this project in its entirety. The revised plan which provides for a 30 inch covered drain line with 12 and 24 inch tributaries and inlet boxes both on the DOT Baseyard property as well as the Maui Family YMCA property, will result in a substantial improvement over the previously planned surface drainage for this project.

The project will have the benefit of alleviating the standing drainage waters at the curve on Hana Highway fronting these two properties and will further minimize erosion and standing water, which has plagued both properties historically. The outfall headwalls is located such that it will allow water to disperse over a relatively large surface area away from the YMCA play field which has been subject to inundation and standing water from heavy storms in prior years.

We support the project and will work closely with the design engineers and contractor to assure an efficient and speedy installation of this drainage facility.

Yours very truly,



C. Earl Stoner, Jr.  
Maui Family YMCA, Board of Directors

CES/kam

CC: Maui District, Keanae Baseyard  
Hana, Maui, Hawaii



Maui  
Family  
YMCA

DISTRIBUTION:

Mr. Gordon Matsuda  
State Public Works Director  
Dept. of Accounting and General Services  
P.O. Box 119  
Honolulu, HI 96810

Mr. Louis Wada  
DLNR  
Maui Land Management Division  
2145 Wells Street, Suite 106  
Wailuku, HI 96793

Mr. Fred Cajigal  
Department of Transportation  
Maui District  
650 Palapala Drive  
Kahului, HI 96732

Mr. Jun Sakauye  
Thomas Agawa & Associates, Inc.

Mr. Harvey Hida  
Hida, Okamoto & Associates, Inc.  
The Commerce Tower  
1440 Kapiolani Blvd., Suite 915  
Honolulu, HI 96814

Mr. Glenn Takaki  
Munekiyo & Arakawa, Inc.  
305 S. High Street, Suite 104  
Wailuku, HI 96793