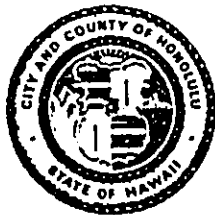


DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813



FRANK F. FASI
MAYOR

SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

IN REPLY REFER TO:

'91 NOV 19 P2:27

91-11-0296

OFC. OF ENVIRONMENTAL
QUALITY CONTROL

November 8, 1991

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

Dear Mr. Choy:


Subject: Notice of Negative Declaration for the Construction of Wall and Drainage
Improvements in the Ailuna/Leighton Street Area, Honolulu, Oahu, Hawaii,
Tax Map Key: 3-6-04

The Department of Public Works has reviewed the environmental assessment for the construction of wall and drainage improvements in the Ailuna/Leighton Street area, and has determined that the project will not have any significant impacts on the environment. Based on our determination, we are filing a Notice of Negative Declaration for this project.

Enclosed are four (4) copies of the Notice of Negative Declaration.

Please contact Jolie Nishikawa at 523-4041 with any questions you may have in regard to this matter. Thank you.

Very truly yours,


SAM CALLEJO
Director and Chief Engineer

Encl.

205

1991-12-08-0A-FEA

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

NOTICE OF NEGATIVE DECLARATION
FOR THE
CONSTRUCTION OF WALL AND DRAINAGE IMPROVEMENTS
IN THE AILUNA/LEIGHTON STREET AREA
CITY AND COUNTY OF HONOLULU, OAHU, HAWAII

This document is prepared pursuant to Chapter 343, HRS.

PROPOSING AGENCY: DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

RESPONSIBLE OFFICIAL:


SAM CALLEJO
Director and Chief Engineer

MF

11-14-91
DATE

PREPARED BY
DIVISION OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

TABLE OF CONTENTS

| | <i>Page</i> |
|--|-------------|
| I. Description of Proposed Action and Statement of Objective | 1 |
| II. Description of Affected Environment | 1 |
| III. Agencies Consulted in Making this Assessment | 2 |
| IV. General Description of the Project's Technical, Economic, Social and Environmental Characteristics | 2 |
| V. Identification and Summary of Major Impacts | 3 |
| VI. Alternatives Considered | 5 |
| VII. Determination | 5 |
| VIII. Reasons for Supporting the Determination | 5 |
| Appendix A - Location Map | |
| Appendix B - Site Map | |
| Appendix C - Typical Section | |
| Appendix D - Comments | |

I. DESCRIPTION OF PROPOSED ACTION AND STATEMENT OF OBJECTIVE

The proposed project involves land acquisition and construction of a reinforced concrete caisson wall and trench drain within the road right-of-way from 858 Leighton Street to 898 Leighton Street (See Appendix B - Site Map).

Portions of the Ailuna/Leighton Street area have experienced large ground movements since January 1989. Presently, most of the damaged area is located between Ailuna and Leighton Streets.

The project includes construction of a caisson wall along Leighton Street which will retain the roadway and utilities and a trench drain to intercept any subsurface water.

II. DESCRIPTION OF THE AFFECTED ENVIRONMENT

The proposed project is located in Aina Haina, Honolulu, Hawaii (TMK: 3-6-4). The project area is approximately seven (7) miles from the State Capitol in Honolulu. The project area is zoned residential.

The average annual rainfall in this area is 23 inches per year. The average temperature varies from 72 degrees to 81 degrees.

The site is about halfway into the head of Wailupe Valley on the eastern side at the base of a ridge of the Koolau Range. The top of the ridge is about 500 to 600 feet above Leighton Street. The ridge is an erosional remnant from the southern Leeward flank of the original Koolau shield volcano. Highly plastic adobe clay exists to depths of about 50 feet below Leighton Street. This type of clay exhibits high swelling/shrinkage potential and loses considerable shear strength when saturated.

There are no sites listed in the National or Hawaii Historic Registers in Wailupe Valley. The nearest such site is the Makaniolu Shelter in Kuliouou Valley.

The subdivision was completed during the early to mid 1950's.

Leighton Street is one of the uppermost streets in the area. The ground surface slopes downward and to the west at an average gradient of 4:1 with localized gradients of as much as 2:1. This magnitude of gradient suggests susceptibility to slope movements.

Most of the utilities and drain lines are located within the street right-of-way. The underground sewer line between Leighton and Ailuna Streets has been placed on the ground surface.

Prior to 1985, only minimal ground movements or damaged occurred. Some of the residents have reported increased water runoff, seepage and increased movement within the last 3 to 5 years. Large ground movements occurred soon after the heavy rains in January 1989.

Most of the damaged area is situated within private property between Ailuna and Leighton Streets. The edge of the pavement along 880 and 884 Leighton Street is cracked and settled. Walls and sidewalks have been uplifted from 821 and 853 Ailuna Street. General damage to the area consists of displacement of walls, settlement or heaving of house foundations, and cracking of pavement and walls.

III. *AGENCIES CONSULTED IN MAKING THIS ASSESSMENT*

- A. City and County of Honolulu
 - 1. Department of General Planning
 - 2. Department of Land Utilization
 - 3. Department of Transportation Services
- B. State of Hawaii
 - 1. Department of Land and Natural Resources
 - 2. Department of Health
- C. U.S. Government
 - 1. Department of Interior, Geological Survey
- D. Associations
 - 1. Kuliouou/Kalani Iki Neighborhood Board No. 2
 - 2. Aina Haina Community Association

Appendix C contains comments on the environmental assessment. No comments were received from the Neighborhood Board and the Community Association.

IV. *GENERAL DESCRIPTION OF THE PROJECT'S TECHNICAL, ECONOMIC, SOCIAL AND ENVIRONMENTAL CHARACTERISTICS*

The trench drain would be installed within the Leighton Street right-of-way to intercept and drain the upper subsurface water. The drain would be comprised of a perforated drain pipe, surrounded by impermeable fabric and crushed rock. It would extend down into the clay layer for a depth of about 15 feet below the existing ground surface (See Appendix C). The drain would be constructed in segments and backfilled to minimize the possibility of further ground instability. Shoring and bracing of the excavation will protect the adjacent ground and structures from moving laterally toward the open trench.

The caisson would be constructed by the placement of 42-inch diameter reinforced concrete piles at approximately 5 feet on center. It would extend down to the depth of more stable foundation conditions. It would enable restoration of the pavement while creating the least disturbance during construction.

The project will not require the forced displacement or relocation of any person. The project has an estimated cost of \$1.1 million. It is anticipated that the construction will begin in the spring of 1992. State funds and CIP funds from the City will be used for the project.

Regarding legal considerations, a lawsuit was filed on November 24, 1990, Civil No. 90-3761-11, Koike, et al. v. City. Consequently, for the record, implementation of this project by the City shall in no way be considered as an admission of guilt or negligence by the City.

V. *IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS AND PROPOSED MITIGATION MEASURES*

The acquisition of certain parcels of land within the Leighton/Ailuna area will not have an adverse impact on the environment. If parcels are acquired, they will be used in conjunction with the proposed drainage improvements which are intended to mitigate the earth movement problems in the vicinity. Thereafter, the parcel will be regraded as needed and landscaped. Property owners will be compensated. Since the drainage improvements are expected to mitigate the earth movement, they would also minimize potential adverse economic and social impacts on the residents in the affected area.

The environmental impact of the proposed project will be limited to the construction phase and may include the following temporary, unavoidable, adverse environmental effects:

- A. **Dust and Noise Emission:** The discharge of dust into the atmosphere may occur during the construction period. This is, however, only a short-term effect on the environment. Dust will be reduced and controlled through the application of water and/or other appropriate methods. The specifications will require the contractor to prevent dust nuisance at all times and have sufficient equipment and manpower at the job site to accomplish this. Noise will be generated by construction equipment such as compressors and drilling equipment. The increase in noise level by construction equipment cannot be avoided, but will be controlled and limited to normal working daylight hours. The contractor will be required to obtain a Community Noise Permit pursuant to Chapter 42, Vehicular Noise Control for Oahu. Individuals that may be adversely affected by the construction noises will be the residents of the surrounding community. The sound level from equipment noise has been estimated for locations at various distances from the work area. The results may be summarized as follows:

| | <u>Location</u> | <u>Distance from Project</u> | <u>Sound Level dBa</u> |
|----|------------------------|------------------------------|------------------------|
| 1. | Nearest residence | 50 feet | 90 dB |
| 2. | Nearest church | 4,200 feet | 52 dB |
| 3. | Nearest school | 800 feet | 66 dB |
| 4. | Nearest medical center | 5,000+ feet | 50 dB |
| 5. | Nearest playground | 800 feet | 60 dB |

B. **Archaeological Deposits:** Since the construction involves excavation to a level below that required during the construction of the subdivision, the possibility that archaeological deposits may be impacted has been recognized. The contract will provide for the inspection of a section of trench by an archaeologist to determine the presence/absence of items of archaeological significance. A follow-up report will be provided to the Historic Sites Section of the Department of Land and Natural Resources. In addition, the specifications will require the contractor to contact the Historic Sites Section of the Department of Land and Natural Resources in the event that such deposits are encountered.

VI. **ALTERNATIVES CONSIDERED**

The following courses of action were considered: (1) no action, (2) improve poor soil conditions, (3) use a crib wall or reinforced earth wall in place of a caisson wall and (4) construction of a caisson wall.

Alternative 1: If no action is taken, it is likely that the residents will continue to experience problems with earth movement. Also, adjacent areas that are now stable may also become affected.

Alternative 2: Improving poor soil conditions will require the removal of the extensive lateral and vertical distribution of clay soils and replacement with nonexpansive soils. However, it is not considered to be practical nor acceptable because it would displace the residents whose lots must be cleared and many of the residents have indicated an unwillingness to relocate.

Alternative 3: The construction of a crib wall or reinforced earth wall may further aggravate the situation and endanger the adjacent homes. In order to construct these types of structures, a large excavation area must be kept open for an extended period of time. The effect of the presence of a large excavation for an extended period of time on an area of earth movement cannot be precisely determined.

Alternative 4: The construction of a reinforced concrete caisson wall and trench drain is the recommended alternative because it would minimize excavation and disturbance to the area.

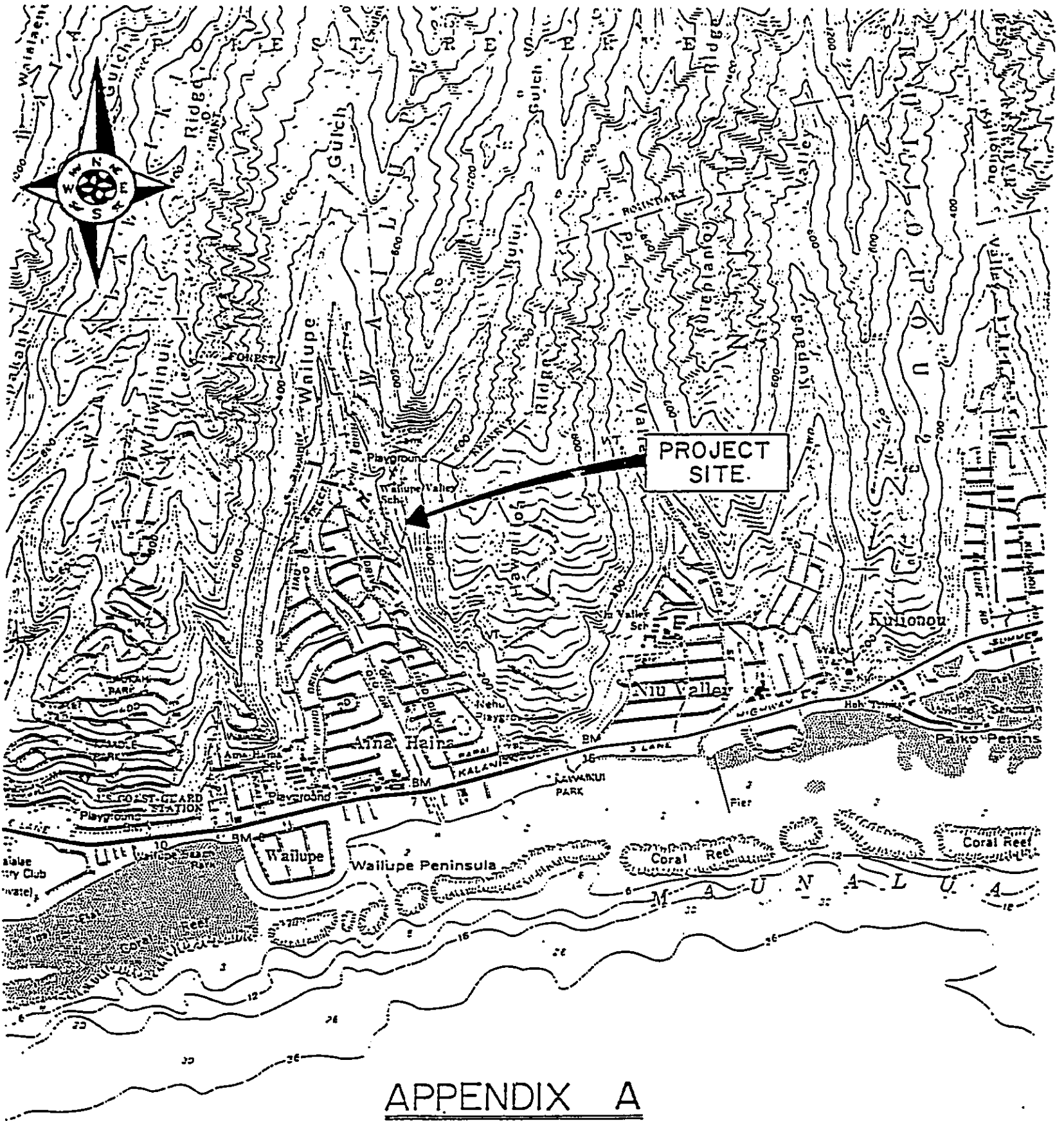
VII. DETERMINATION

After preparing an environmental assessment, we have determined that the proposed project will not have a significant impact on the environment, and an environmental impact statement will not be prepared.

VIII. REASONS FOR SUPPORTING DETERMINATION

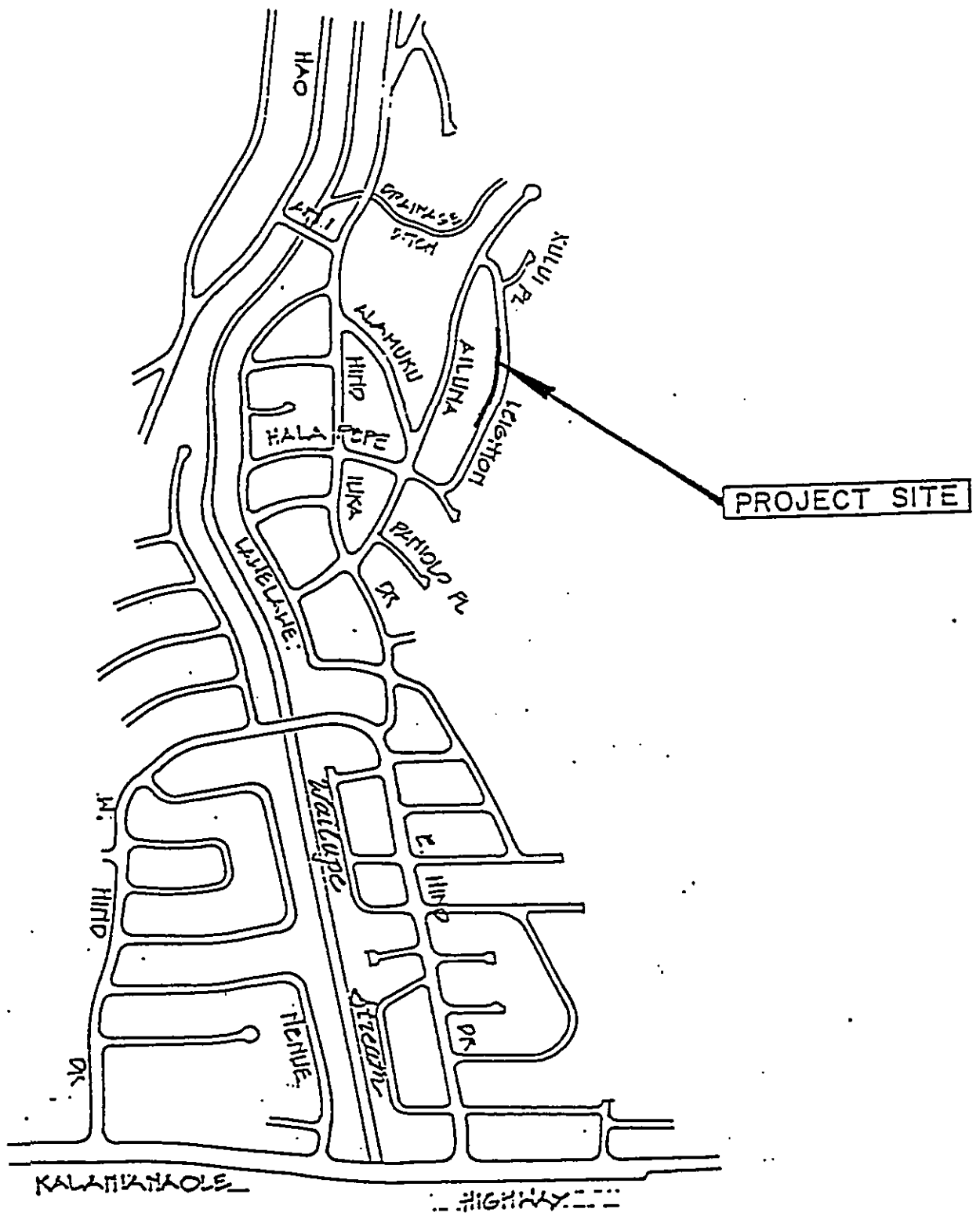
Based on the criteria, the policies, guidelines, and provisions of Chapters 342, 343, and 344, HRS, the reason supporting the Negative Declaration determination is that the proposed project will not:

- affect rare or endangered species of flora or fauna.
- affect any natural or cultural resources.
- affect undeveloped lands.
- conflict with existing land use and development plans.
- have significant long term effect on air quality, water quality or ambient noise levels.
- be located in close proximity to any known natural, historic, or archaeological sites.

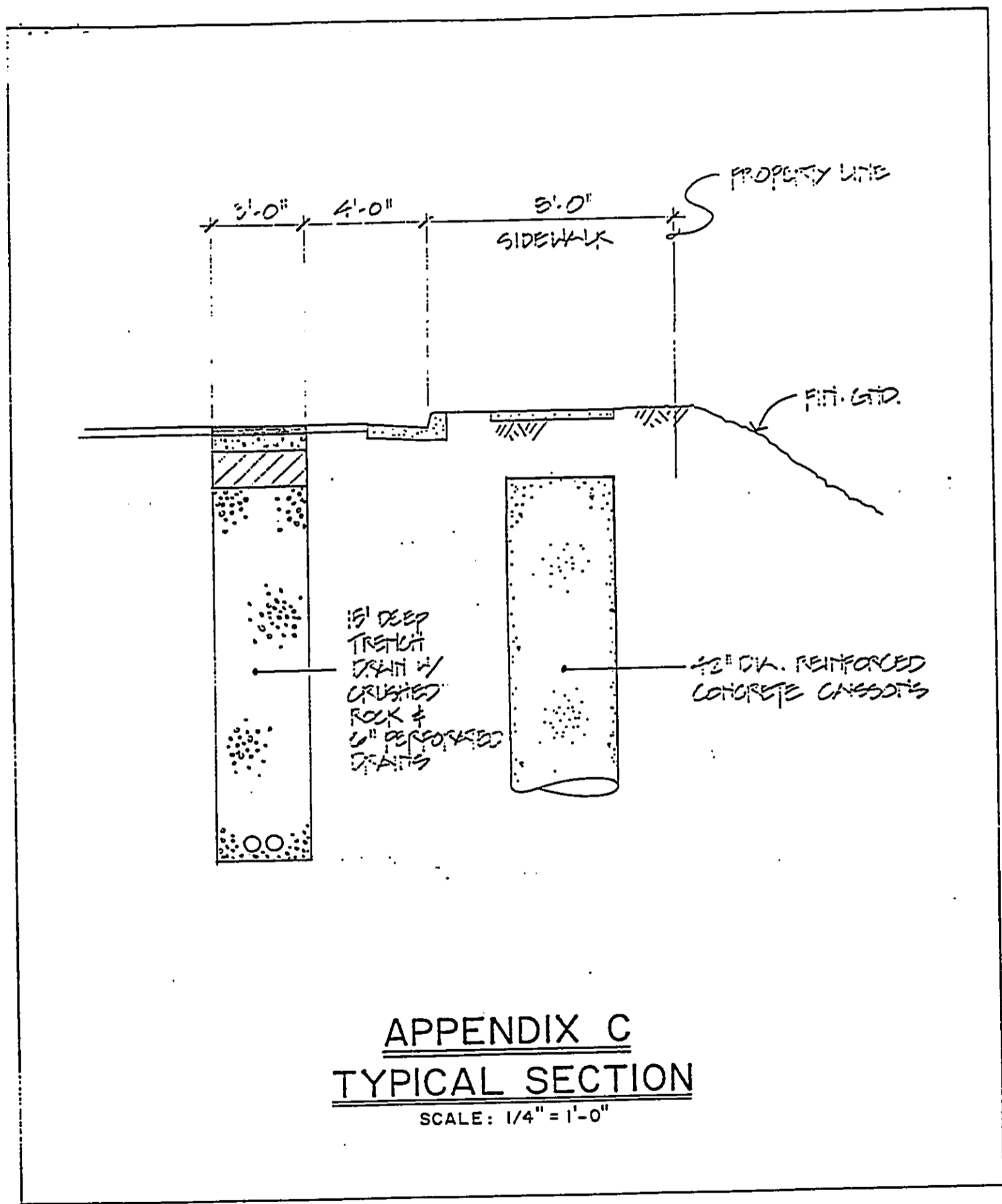


APPENDIX A
LOCATION MAP

SCALE IN FEET
1000 0 1000 2000 3000



APPENDIX B
SITE MAP
NOT TO SCALE



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

DOCUMENT CAPTURED AS RECEIVED

APPENDIX D
COMMENTS

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK FASI
MAYOR



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

VW 8/91-2823

November 12, 1991

MEMORANDUM

Sam
TO: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS
FROM: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING
SUBJECT: ENVIRONMENTAL ASSESSMENT (EA) FOR THE CONSTRUCTION OF
WALL AND DRAINAGE IMPROVEMENTS IN THE AILUNA/LEIGHTON
STREET AREA

In response to your memo of August 26, 1991, we have reviewed the subject Environmental Assessment and concur with your recommended Alternative 4. The project will improve subsurface conditions which affect health, life, and safety of residents of the area. We believe that a negative declaration would be appropriate for the proposed project.

Should you have any questions, please contact Verne Winquist of our staff at 527-6044.

BLL
BENJAMIN B. LEE
Chief Planning Officer

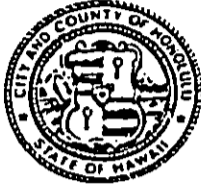
BBL:js

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU 91-3643
RECEIVED
DEPT. OF PUBLIC WORKS, HONOLULU, HAWAII 96813 • (808) 523-4432

SEP 16 1 57 PM '91

TO _____

FRANK F. FASI
MAYOR



GM Dir/Dep
ENGR 9/17

DONALD A. CLEGG
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

LU 8/91-7128 (JSM)

September 12, 1991

MEMORANDUM

TO: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

SUBJECT: THE ENVIRONMENTAL ASSESSMENT FOR THE CONSTRUCTION OF
WALL AND DRAINAGE IMPROVEMENTS IN THE AILUNA/LEIGHTON
STREET AREA

RECEIVED
DIV. OF ENGINEERING
SEP 17 3 45 PM '91

Thank you for providing us with the opportunity to comment on the above referenced environmental assessment.

We have reviewed the environmental assessment for the proposed project and find no significant environmental issues to comment on at this time.

If you have any questions, or would like to provide us with any additional information, please call John Morihara of our staff at 527-5349.

Donald A. Clegg
DONALD A. CLEGG
Director of Land Utilization

lu7128.lag

TE-4572
PL91.1.292

October 1, 1991

MEMORANDUM

TO: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: JOSEPH M. MAGALDI, JR., DIRECTOR

SUBJECT: AILUNA/LEIGHTON STREET AREA, WALL AND DRAINAGE
IMPROVEMENTS, ENVIRONMENTAL ASSESSMENT (EA)
TMK: 3-6-04


This is in response to your memorandum dated August 26, 1991 requesting our comments on the subject environmental assessment.

Based on our review, we have the following comments:

1. The concrete section of the sidewalk, as shown in Appendix C, should abut the property line. Guardrails should be provided, if necessary.
2. Construction plans for all work within the City's right-of-way should be submitted to our department for review. A traffic control plan showing temporary detours for pedestrians and vehicles should be included in these plans.

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

Sincerely,


JOSEPH M. MAGALDI, JR.
Director

OCT 02 1991

ty(L. Watanabe)

PL911292.DOC

JOHN WAINEE
GOVERNOR OF HAWAII

RECEIVED
DEPT. OF PUBLIC WORKS

OCT 3 11 27 AM '91

TO _____



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 521
HONOLULU, HAWAII 96809

REF: OCEA: SKK

OCT 2 1991

FILE NO.: 92-151
DOC. NO.: 1761E

91-3921
WILLIAM W. PATTY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

*Copy to DEP
Eng 10/4*

DEPUTY
KEITH W. AHUE
MANABU TAGOMORI
Dan T. Kochi
AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
PROGRAM
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

RECEIVED
DIV. OF ENGINEERING
OCT 4 2 40 PM '91

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

Dear Mr. Callejo:

Subject: Environmental Assessment for the Construction of Wall and
Drainage Improvements
Location: Ailuna/Leighton Street Area

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

HISTORIC PRESERVATION DIVISION CONCERNS:

A review of our records shows that there are no known historic
sites at the project plat. Residential development in the early to
mid-1950s would have destroyed any extant surface remains, so the
only historic sites that might be located at the project plat would
be subsurface archaeological deposits. Archaeological excavations
near the back of Kuliouou Valley in 1979 showed that evidence of
prehistoric agriculture may be found buried under more recent
sediments in the dry valleys along the south coast of the island.
The environmental assessment notes that excavation for installation
of a trench drain will go below the levels required during
construction of the subdivision, so that there is the possibility
that archaeological deposits may be impacted.

Mr. Sam Callejo

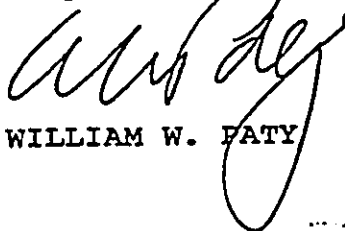
-2-

File No.: 92-151

We believe that the best way to ensure that archaeological deposits are recognized and properly treated -- with a "no adverse effect" determination -- is to have a qualified archaeologist monitor trench drain excavations after they are completed in order to record the presence and describe any archaeological deposits, and to collect samples for dating analyses.

Thank you for your cooperation in this matter. Please feel free to call me or Sam Lemmo at our Office of Conservation and Environmental Affairs, at 548-7837, should you have any questions.

Very truly yours,



WILLIAM W. PATY

WILLIAM W. PATY
DIRECTOR

SENT BY: STATE OF HAWAII

:11- 6-91 : 8:02AM (ENVIRONMENTAL HEALTH)

808 523 4147;# 2

JOHN WAIHEE
GOVERNOR OF HAWAII



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

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 2378
HONOLULU, HAWAII 96813

September 27, 1991

In reply, please refer to:

91-315
TKR 3-6-04

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

Dear Mr. Callejo:

Subject: Request for Comments
Environmental Assessment
Construction of Wall and Drainage
Improvements in the Ailuna/Leighton Street Area
Honolulu, Oahu, Hawaii

Thank you for allowing us to review and comment on the subject request. We do not have any comments at this time.

Sincerely,

A handwritten signature in cursive script that reads "John C. Lewin".

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

DOCUMENT CAPTURED AS RECEIVED



United States Department of the Interior

GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
577 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813



November 6, 1991

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

Dear Mr. Callejo:

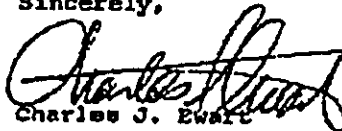
Subject: Environmental Assessment for the Construction of Wall and
Drainage Improvements in the Ailuna/Leighton Street Area

This letter is in response to your letter of August 26, 1991 in which you ask for our comments on the report, Environmental Assessment for the Construction of Wall and Drainage Improvements in the Ailuna/Leighton Street Area, City and County of Honolulu, Oahu, Hawaii.

We are not currently involved in a specific study of the subject area and have no detailed geotechnical information pertaining to the site. The report contains little information on the site geologic conditions, such as material strengths and the geometry of the failure surface, and on the site hydrologic conditions, such as ground water occurrence and pore pressure distributions. Because of the lack of information, it is difficult to assess what effects the proposed construction will have on the stability of the site.

Please pardon the lateness of our response on this assessment.

Sincerely,


Charles J. Ewart
Acting District Chief

DOCUMENT CAPTURED AS RECEIVED