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

Dear Mr. Choy:

Subject: Negative Declaration for the Karsten Drive Drainage Improvement Project, Wahiawa, Oahu, Hawaii, Tax Map Key: 7-5-15, 16 and 26

This letter is a notice of Negative Declaration by the proposing agency, the City and County of Honolulu, Department of Public Works. The subject action has been assessed according to Title 11, Chapter 200, Environmental Impact Statement Rules, and Chapter 343, HRS.

A determination has been made that an environmental impact statement is not required based on an environmental assessment which was prepared for the project. Enclosed are four copies of the environmental assessment and a copy of the document for publication form.

The pertinent information for this notice of determination is summarized below.

1. **PROPOSING AGENCY**

   City and County of Honolulu, Department of Public Works.

2. **DESCRIPTION OF THE PROPOSED ACTION**

   The proposed project will involve construction of manholes, grate inlets, and trench drains at various locations along California Avenue and Karsten Drive with approximately 1,300 feet of reinforced concrete pipe connecting the structures. The flow will be discharged into an existing gully near the Hidden Valley development.
The project is estimated to cost between $300,000 to $400,000 and will be funded by the State of Hawaii. Construction of the project will be contingent upon availability of State funds.

3. **DETERMINATION**

After preparing an environmental assessment and consulting with other agencies, we have determined that the proposed project will not have a significant impact on the environment, and an Environmental Impact Statement is not required.

4. **REASONS SUPPORTING DETERMINATION**

Reasons and conclusion supporting determination are based on the following criteria.

The proposed project will not:

a. Involve an irrevocable commitment to loss or destruction of any natural or cultural resource;

b. Curtail the range of beneficial uses of the environment;

c. Conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;

d. Substantially affect the economic or social welfare of the community or State;

e. Substantially affect public health;

f. Involve substantial secondary impacts, such as population changes or effects on public facilities;

g. Involve a substantial degradation of environmental quality;

h. Substantially affect a rare, threatened, or endangered species or its habitat;

i. Detrimentally affect air or water quality or ambient noise levels; or

j. Detrimentally affect an environmentally sensitive area, such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.
5. **CONTACT PERSON**

Melvin Takakura  
Department of Public Works  
Division of Engineering  
Honolulu Municipal Building, 15th Floor  
650 South King Street  
Honolulu, Hawaii 96813

Telephone No.: 523-4931

Very truly yours,

[Signature]

C. MICHAEL STREET  
Director and Chief Engineer

Attachment (4 copies)

cc: Gray, Hong, Bills & Associates, Inc. (w/o attach.)
DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU  

FINAL  
ENVIRONMENTAL ASSESSMENT  
FOR  
KARSTEN DRIVE DRAINAGE IMPROVEMENT  
WAIIAWA, OAHU, HAWAII  
TAX MAP KEY: 7-5-15, 16 & 26

This environmental document was prepared pursuant to Chapter 343 HRS

Proposed Agency: Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

C. Michael Street  
Director and Chief Engineer

Prepared by:  
Gray, Hong, Bills & Associates, Inc.  
Consulting Engineers  
119 Merchant Street, Suite 607  
Honolulu, Hawaii 96813

August 4, 1992
TABLE OF CONTENTS

I. GENERAL DESCRIPTION OF THE PROPOSED ACTION 
   A. Technical 
   B. Socio-Economic 
   C. Environmental Characteristics 

II. SUMMARY DESCRIPTION OF THE ENVIRONMENT 
   A. Location 
   B. Population 
   C. Climate 
   D. Land Use 
   E. Historic or Cultural Sites 
   F. Wildlife and Flora 
   G. Soils 
   H. Drainage 

III. SUMMARY OF THE MAJOR IMPACTS 

IV. ALTERNATIVES CONSIDERED 
   A. No Improvements 
   B. Regrading Existing Roadways 
   C. Reconstructing Existing Driveway 
   D. Combination of Alternatives 
   E. Proposed Drainage System-Recommended Alternative 

V. MITIGATION MEASURES PROPOSED 

VI. AGENCIES CONSULTED 

VII. DETERMINATION 

VIII. FINDINGS AND REASONS SUPPORTING THE DETERMINATION 

IX. LIST OF REFERENCES 

LIST OF EXHIBITS 

Exhibit 1. Vicinity Map 
Exhibit 2. Location Map 
Exhibit 3. Existing Flowage Pattern 
Exhibit 4. Proposed Drainage System 
Exhibit 5. State Land Use Map 
Exhibit 6. Development Plan Map 
Exhibit 7. Zoning Map 
Exhibit 8. USDA Soil Conservation Service Survey Map 

APPENDIX 

Appendix A - Responses and Replies from Agencies Consulted During the Assessment Process
I. GENERAL DESCRIPTION OF THE PROPOSED ACTION

A. Technical

The project site is located in Wahiawa, Island of Oahu, Hawaii (see Exhibit 1: "Vicinity Map"). The project limits include a portion of Karsten Drive and California Avenue (see Exhibit 2: "Location Map").

The existing drainage system within the project limits consists of a grate inlet connected to approximately 67 feet of 36" pipe which discharges stormwater into an existing gully located within the Hidden Valley development (see Point "A" of Exhibit 3: "Existing Flowage Pattern").

Due to a lack of drainage inlet structures along California Avenue and Karsten Drive, various problems occur in the project area.

Site investigations during a period of heavy rainfall showed that there is heavy runoff which flows down a portion of Karsten Drive, east of California Avenue. The majority of this storm runoff sheetflows across the intersection of California Avenue and Karsten Drive indicated as Point "J" of Exhibit 3. Due to the lack of drainage inlet structures along Karsten Drive, approximately 15 cfs of runoff sheetflows within approximately 950 feet of the roadway to the intersection at Point "J".

Likewise, the absence of any inlets on the north side of California Avenue from Haumalu Place to the California Avenue bend (Point "E"), results in approximately 20.4 cfs of storm runoff sheetflowing within the roadway. This runoff reaches the California Avenue bend and sheetflows across the roadway.

Another problem occurs at Point "D" of the "Existing Flowage Pattern" map. The driveway grades to this residential lot (TMK 7-5-15:68) is lower than the pavement elevations along California Avenue. Therefore, some of the runoff which sheetflows across California Avenue enters the driveway and sheetflows down into the private residential lot.

Another deficiency of the existing drainage system is the inadequacy of the existing inlet and outlet pipe to handle the design storm runoff. Calculations show that a 10-year storm would result in water rising above the top of the inlet. This is due to the outlet pipe being too small as well as the inlet not having sufficient depth.

The proposed project will involve the construction of drain inlets within California Avenue and Karsten Drive. Approximately 1165 feet of reinforced concrete pipe will connect the structures and discharge flow into the existing gully west of the project site at the same location of the existing outlet. Concrete jackets will be required for the existing water and sewer lines at
various locations. The proposed drainage system is shown on Exhibit 4 - "Proposed Drainage System".

Review of As-Built drawings for the Hidden Valley development indicates a drain easement over the 36" drainline in favor of the City and County of Honolulu. However, discussion with the Department of Public Works, Land Division, reveal that the easement was never created and granted to the City and County of Honolulu.

Therefore, construction of proposed improvements within the Hidden Valley development will require authorization from the Hidden Valley Owner’s Association. In addition, an easement in favor of the City and County of Honolulu will be required.

Construction will involve trench excavation, laying of 12", 18", 24", 30" and 36" reinforced concrete pipe, construction of grate inlets, trench drain and drain manholes, backfilling and compaction, and restoration of roadway pavement and private property.

B. **Socio-Economic**

The drainage improvements within California Avenue and Karsten Drive will reduce the amount of runoff sheetflowing within the roadways and will offer both social and economic benefits to the homeowners by providing them with a sense of security during periods of heavy rainfall. The proposed trench drain will reduce the amount of runoff which sheetflows into the residential lot, thereby, reducing the potential for property damage. Estimates of damages incurred on their property due to past flooding is not available.

The project is estimated to cost between $300,000 to $400,000 and will be funded by the State of Hawaii.

C. **Environmental Characteristics**

The project site is along California Avenue and Karsten Drive within a single-family residential area in Wahiawa, Island of Oahu, Hawaii. The project will involve construction of drain lines within California Avenue and Karsten Drive and through property of the Hidden Valley development.

Since all drain lines will be underground, aesthetics of the area will not be affected. Impacts to the environment will, therefore, be limited to temporary disturbances during construction. Noise and dust generation during construction will be regulated by State Department of Health regulations and City and County Ordinances. Roadways and private yards will be restored to their existing condition after completion of the drain line installation.
II. SUMMARY DESCRIPTION OF THE ENVIRONMENT

A. Location

The project affects areas along a portion of Karsten Drive and California Avenue (T.M.K. 7-5-15, 7-5-16 and 7-5-26) in Wahiawa, Island of Oahu, Hawaii (see Exhibit 1 - "Vicinity Map" and Exhibit 2 - "Location Map"). The project area is approximate 2.7 miles east of Kamehameha Highway and the H-2 freeway. Schofield Barracks Military Reservation is just south of the site, the Ewa Forest Reserve is north of the site and Illahi Elementary School is 2 blocks west of the project site.

Karsten Drive is approximately 3550 feet long and runs in a closed loop intersected by California Avenue. Karsten Drive is privately owned (TMK 7-5-16:69). California Avenue is a State roadway. Karsten Drive has a 40' wide right-of-way with a 20' wide pavement section. California Avenue has a 44' wide right-of-way with a 24' wide pavement section. Both are asphalt paved with normal crowns at the center of the roadway and have unpaved shoulders without curb and gutters.

As shown in Exhibit 4, the existing underground utilities in the portion of Karsten Drive included in the project site consists of an 8" sewer line and an 8" water main. The existing underground utilities in the portion of California Avenue included in our project limits consists of an 8" sewer line, a 12" water main and a 2" water main. Both Karsten Drive and California Avenue also have existing overhead electrical lines.

Wahiawa is a highly populated city in Leeward Oahu located approximately 25 miles northwest of downtown Honolulu. The Koolau Range lies to the east and Schofield Barracks to the west and south. Wheeler Air Force Base is also south of Wahiawa. The residential area consists of primarily single-family homes with commercial and service establishments for residents. Because of the location of Schofield Barracks and Wheeler Air Force Base, the area has a fairly high population of military residents and their families.

Main streams within Wahiawa include Poamoho and Kaukonahua. Kaukonahua Stream meanders through the Botanical Gardens northwest of our project site and feeds into the Wahiawa Reservoir and Lake Wilson.

B. Population

The resident population within Wahiawa was estimated to be 43,882 as of July 1, 1989, an increase of 4.1% from the 1980 census population of 42,169. The project area is within Census Tract 91 (bounded by the Koolau Range, Wilikina Drive, the Military Reserve and the Forest Reserve) with a population of 4,303 as of July 1, 1988. (State of Hawaii, 1991)
C. Climate

Average rainfall is approximately 45 inches near the Schofield Barracks Forest Reserve and East Range Military Reservation and 150 inches near the Koolau mountains. Temperatures range from an average (mean) minimum of 62 degrees Fahrenheit to an average (mean) maximum of 88 degrees Fahrenheit. The prevailing wind is the northeasterly trade wind. (University of Hawaii, 1983).

D. Land Use

The project site is classified as within the State’s urban district (see Exhibit 5 - "State Land Use Map").

Based on the City and County of Honolulu Development Plan Map, the project is within a residential area and is surrounded by areas designated for residential, public facilities, preservation, park and military use (see Exhibit 6 - "Development Plan Map"). Public facilities in the vicinity include Illahi Elementary School, Illahi Park, Leilehua High School, Wahiawa Intermediate and Elementary schools and Leilehua Golf Course.

Zoning within the area is R-7.5, Residential. Surrounding areas are within P-1 and P-2 Reservation, R-5 Residential, and F-1 Federal and Military zones as indicated on Exhibit 7 - "Zoning Map".

E. Historic or Cultural Sites

Karsten Drive and California Avenue as well as the surrounding residential areas have been altered by grading done as part of the subdivision construction. The existence of historic or cultural sites is therefore unlikely. The construction contractor will be required to contact the State Historic Sites Section should any artifacts be unearthed during trench excavations.

F. Wildlife and Flora

Due to the urbanization of the area, wildlife and indigenous flora are non-existent. Flora within the area consists of introduced species.

G. Soils

Soils within the project area belong to the Leilehua Soil Association as indicated on Exhibit 8 - "USDA Soil Conservation Service Survey Map". These soils are characterized in the Soil Conservation Service’s "Soil Survey,
Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii as "gently sloping to moderately sloping; well-drained soils on uplands". (USDA, 1972).

The soils within the project area is further classified as Leilehua silty clay (LeB) with slopes between 2 and 6 percent. This extremely acid soil includes a 12-inch-thick surface layer of dark reddish-brown silty clay with concentrations of heavy minerals. The subsoil thickness of approximately 36 inches consists of dark reddish-brown and dusky-red silty clay and clay that has sub-angular blocky structure. The substratum is a mixture of dark reddish-brown clay and weathered gravel.

H. Drainage

Storm runoff from the residential lots east of Haumalu Place is collected on California Avenue and intercepted by catch basins at the intersection of Haumalu Place and California Avenue (see Point "H" of Exhibit 3).

Flow on Haumalu Place is intercepted by catch basins located at the end of Haumalu Place (Point "I") and discharged into a 24" pipe which connects to a CRM lined ditch leading into the existing gully at the northern end of Haumalu Place.

Stormwater diverted by Grand View Place sheetflows onto California Avenue toward Karsten Drive. Flow on the south side of California Avenue is diverted to the U.S. Military Reservation adjacent to the project site by 3 inlets as shown in Points "E", "F" and "G" on Exhibit 3.

The flow on the north side of California Avenue, as well as flow down a portion of Karsten Drive, is intercepted by a grate inlet near the Hidden Valley development located at Point "A" of the Flowage Pattern map. The flow collected in this inlet is discharged by a 36" pipe into an existing gully west of the project site.

On the Flood Insurance Rate Map dated September 28, 1990, the Federal Emergency Management Agency (FEMA) designated the project area as within Zone D, an area in which flood hazards are undetermined.

III. SUMMARY OF THE MAJOR IMPACTS

The proposed project will involve construction of grated drain inlets and manholes at various locations along California Avenue and Karsten Drive including a trench drain along California Avenue. The drainage structures will be connected by approximately 1165 feet of reinforced concrete pipe.
The construction of the proposed drainage system will temporarily inconvenience residents along Karsten Drive and California Avenue with equipment noise, dust and interference with vehicular and pedestrian traffic.

IV. ALTERNATIVES CONSIDERED

Various alternatives under consideration regarding the drainage system in the project area include:

1) No improvements;
2) Regrading existing roadways;
3) Reconstructing existing driveway;
4) A combination of the previous alternatives;
5) The drainage system shown on Exhibit 5: "Proposed Drainage System".

A. No Improvements

This option is not a viable alternative and is not recommended because the deficiencies of the existing system would remain. The existing inlet and outlet pipe would remain inadequate, therefore, water will continue to rise above the top of the inlet. Heavy sheetflow across the roadway at Points "E" and "J" (see Exhibit 3) would remain a problem. Also, storm runoff from California Avenue would continue to enter private property at Point "D".

B. Regrading Existing Roadways

One option to be considered would be to regrade the roadway in the problem area at Point "E" of Exhibit 3 so that sheetflow remains at the edge of pavement rather than sheetflowing across the roadway. This alternative will only resolve a portion of the problems discussed in Section 1.A. The problem of flow across the roadway at the Karsten Drive and California Avenue intersection and the inadequacy of the existing drainage system at the bottom of Karsten Drive (Area "A" of Exhibit 3) would remain. The problem with runoff from the roadway into the private lot at Point "D" would also remain, although the amount of runoff entering the lot would be decreased.

C. Reconstructing Existing Driveway

The problem at Area "D" of Exhibit 3 where stormwater flows down the private driveway could be resolved by reconstructing the existing driveway such that the driveway entrance elevations would be higher than the pavement elevations along the roadway. Reconstructing the private driveway is not
recommended because it will increase the slope of the existing driveway, which is already at an approximate slope of 10%.

D. Combination of Alternatives

A combination of the options discussed previously could be used to resolve the problems with the existing drainage system. The existing roadway at Point "E" of Exhibit 3 could be regraded and the driveway at Point "D" could be reconstructed. This would solve the problem of sheetflow across the roadway at the California Avenue bend and prevent flow from the roadway from entering the private lot. However, the combination of alternatives would not solve all the inadequacies of the existing system.

E. Proposed Drainage System - Recommended Alternative

Another alternative is to construct the drainage system as shown in Exhibit 4: "Proposed Drainage System". The proposed system will address the deficiencies of the existing system described in Section I.A and is, therefore, recommended.

The proposed grate inlet labeled as Inlet #B-3 of Exhibit 4 will intercept most of the flow from the area above the project site (Grand View Place and California Avenue) thus decreasing the amount of sheetflow across the roadway. A grated trench drain along the private driveway (labeled as #TD-1), will intercept stormwater that may run down the private driveway.

Two grate inlets are proposed along both sides of Karsten Avenue at the intersection of Karsten Drive and California Avenue. These inlets will intercept storm runoff which runs down both sides of Karsten Avenue. This will eliminate storm runoff from sheetflowing across California Avenue in the event of a 10-year storm.

The proposed grate inlet #C-1 along Karsten Avenue between the two new grate inlets and the existing grate inlet will serve to decrease the flow into drain inlet #A-1, as shown on Exhibit 4.

The existing grate inlet will be reconstructed with a lower invert elevation to provide sufficient depth to accommodate entrance control. The existing 36" pipe will be replaced with a new 36" reinforced concrete pipe with a lower outlet invert.

All new inlets and manholes will be connected by reinforced concrete pipe which will direct flow to the existing gully located in the Hidden Valley development.
V. MITIGATION MEASURES PROPOSED

The contractor shall provide adequate grading, stockpiling and erosion control measures as required by Chapter 23 of the Revised Ordinances of Honolulu, 1978, as amended. The contractor will be required to equip all construction equipment and on-site vehicles with proper mufflers and comply with any conditional use requirements specified by the community noise permit. Traffic noise from heavy vehicles travelling to and from the site through the subdivision shall be minimized in accordance with Chapter 11-42, Vehicle Noise Control for Oahu.

Both Karsten Drive and California Avenue are two-lane roads. The contractor will be required to minimize disruption of vehicular and pedestrian traffic within the area. Access to residents' garages will be provided during non-working hours. Traffic safety signs and barriers will be erected by the contractor in accordance with requirements of the City Department of Transportation Services.

Due to the close proximity of the proposed work to residential homes, the contractor shall be required to minimize disturbance to surrounding areas and will be required to restore all areas back to their original condition or better after completion of the drainage work.

VI. AGENCIES CONSULTED

A. Federal Agencies
   1. U.S. Army Engineer, Honolulu District
   2. U.S. Department of the Interior, Fish & Wildlife Service

B. State Agencies
   1. Department of Health
   2. Department of Land and Natural Resources
   3. Department of Transportation

C. City Agencies
   1. Department of General Planning
   2. Department of Land Utilization
   3. Department of Transportation Services
4. Wahiawa Neighborhood Board No. 26

Responses from agencies are attached in Appendix A.

VII. DETERMINATION

After completing an assessment of the potential environmental affects of the proposed project and consulting formally with other governmental agencies, it has been determined that an Environmental Impact Statement is not required. Therefore, this document constitutes a notice of Negative Declaration.

VIII. FINDINGS AND REASONS SUPPORTING THE DETERMINATION

Findings and reasons supporting the Negative Declaration determination are as follows, using the criteria, policies, guidelines and provisions of Title 11, Chapter 200, Environmental Impact Statement Rules and Chapter 343, HRS. The proposed project will not:

A. Involve an irrevocable commitment to loss or destruction of any natural or cultural resource;

B. Curtail the range of beneficial uses of the environment;

C. Conflict with the State’s long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;

D. Substantially affect the economic or social welfare of the community or State;

E. Substantially affect public health;

F. Involve substantial secondary impacts, such as population changes or effects on public facilities;

G. Involve a substantial degradation of environmental quality;

H. Substantially affect a rare, threatened or endangered species, or its habitat;

I. Detrimentally affect air or water quality or ambient noise levels; or

J. Affect an environmentally sensitive area, such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters. [Eff. Dec. 06, 1985] (Auth: HRS sec. 343-6) (Imp. HRS Secs. 342-2, 343-6)
IX. LIST OF REFERENCES


APPENDIX A

RESPONSES AND REPLIES FROM AGENCIES CONSULTED DURING THE ASSESSMENT PROCESS
DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 230
PT. SHAFTER, HANAI 96856-5440

July 2, 1992

REPLY TO
ATTENTION OF:
Planning Division

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

Dear Mr. Street:

Thank you for the opportunity to review and comment on the Environmental Assessment for the Karsten Drive Drainage Improvement Project, Wahiawa, Oahu (TMK 7-5-15, 16, and 26). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. The proposed project does not involve work in waters of the United States; therefore, a DA permit is not required.

b. The Zone D designation cited on page 6 of the document is correct.

Sincerely,

[Signature]
Kisuk Cheung, P.E.
Director of Engineering
The Honorable C. Michael Street
Acting Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 So. King Street
Honolulu, Hawaii 96813

Dear Mr. Street:

SUBJECT: Environmental Assessment for the Karsten Drive Drainage
Improvement Project, Wahiawa, Oahu, Hawaii,
TMK: 7-5-15, 16 and 26

Thank you for giving our Department the opportunity to comment on this matter.

Our Department's Historic Preservation Division has reviewed its records
and comments that there are no known sites at the project location, which
has been previously graded.

Archaeological reconnaissance survey in a nearby ungraded area found no
historic sites. These factors make it highly unlikely that significant
historic sites are present. Therefore, we believe this project will have
"no effect" on historic sites.

Thank you for your cooperation in this matter. Please feel free to call
Sam Lemo at our Office of Conservation and Environmental Affairs, at
587-0377, should you have any questions.

Very truly yours,

WILLIAM W. PATT
Mr. C. Michael Street  
Acting Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  

Dear Mr. Street:  

Environmental Assessment, Karsten Drive Drainage Improvement Project, Wahiawa, Oahu, TMK: 7-5-15, 16, 26  

Thank you for your letter of June 3, 1992, requesting our review of the subject environmental assessment.  

The proposed project will not impact our State highway facilities.  

Sincerely,  

Rex D. Johnson  
Director of Transportation
MEMORANDUM

TO: C. MICHAEL STREET, ACTING DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR THE KARSTEN DRIVE
DRAINAGE IMPROVEMENT PROJECT, WAIKAWA, OAHU, HAWAII,
TAX MAP KEY: 7-5-15, 16 AND 26

July 14, 1992

In response to your memorandum of June 3, 1992, for the subject
Environmental Assessment for Karsten Drive Drainage Improvements,
we have reviewed the assessment report and have no comments to
offer at this time.

Based on our review, a "Negative Declaration" would be
appropriate for this project.

Thank you for the opportunity to review the Environmental
Assessment report for the proposed project. Should you have any
questions on the matter, please contact Brian Suzuki at 527-6073.

BENJAMIN B. LEE
Chief Planning Officer

BBL:1h
MEMORANDUM

TO: C. MICHAEL STREET, ACTING DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: DONALD A. CLEGG, DIRECTOR

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR THE KARSTEN DRIVE
DRAINAGE IMPROVEMENT PROJECT
WAHIWA, OAHU, HAWAII
TAX MAP KEY: 7-5-15, 16 AND 26

Thank you for providing us with an opportunity to comment on the
Karsten Drive Drainage Improvement Project.

At this time, we have no significant Departmental concerns about
the proposed project. We also find that the project is not within
the Special Management Area.

Should you have any questions, please contact the Environmental
Affairs Branch at 523-4077.

DONALD A. CLEGG
Director of Land Utilization

DAC:ct

a:karsten.sc
MEMORANDUM

TO: MICHAEL STREET, ACTING DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: JOSEPH M. MAGALDI, JR., DIRECTOR

SUBJECT: HARSTEN DRIVE DRAINAGE IMPROVEMENT
ENVIRONMENTAL ASSESSMENT
TMK: 7-5-15, 16 AND 26

This is in response to your memorandum dated June 3, 1992 requesting our comments on the subject environmental assessment.

Based on our review, we have no objections to the proposed drainage improvements. However, construction plans 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.

JOSEPH M. MAGALDI, JR.