

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

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April 10, 2002

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

CDED-A 02-0089

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Finding of No Significant Impact (FONSI) for Hakimo Road
Drainage Improvements, Waianae, Oahu, Hawaii, Tax Map
Key: 8-7-21: 29

The Department of Design and Construction (DDC) is the proposing agency and accepting authority for the above project. DDC has reviewed and responded to comments received during the 30-day public comment period and the Draft Environmental Assessment (EA) of the project which began on January 23, 2002.

DDC has determined that this project will not have significant environmental effects and is issuing a notice of determination of a FONSI. Please publish this notice in the April 23, 2002 OEQC Environmental Notice. We have enclosed a completed OEQC Publication Form and four copies of the Final EA.

Identification of Proposing Agency and Accepting Authority

Department of Design and Construction
City and County of Honolulu

Brief Description of Proposed Action

The City and County of Honolulu proposed to construct an underground drainage system to alleviate the flooding occurring in the vicinity of the intersection between Hakimo Road and Ulehawa Road. Currently, the drainage system in the area is limited to one drywell located at the low point (sag) along Hakimo Road, near the intersection with Ulehawa Road. The drywell is hydraulically inadequate and standing water may remain up to a week after heavy rainfall, only to be removed by evaporation and percolation. The ponding water occurs after a blind turn on Hakimo Road, which is heavily traveled by passenger vehicles and semi-tractor trailer trucks, creating a hazard for traffic heading in the makai direction. The proposed system will satisfy current City and County storm drainage standards (2000) and

will include approximately 2,500 lineal feet of 18-, 24-, 30-, and 36-inch diameter reinforced concrete pipe, 3 drainage inlets, 14 manholes, and an outlet structure on the bank of Ulehawa Stream. Existing road surfaces will be restored to original condition.

Determination and Reasons Supporting the Determination

After completing an assessment of the potential environmental effects of the proposed project, reviewing comments from the public, governmental agencies and interested parties, and evaluating the Significance Criteria, Section 12 or Hawaii Administrative Rules Title 11, Chapter 300, Environmental Impact Statement Rules, the proposing agency does not anticipate any significant impacts on the environment. A FONSI has been determined for the project with the reasons supporting this determination discussed below:

1. *The project will not involve an irrevocable commitment to loss or destruction of any natural or cultural resources.*

The proposed project site is located in a residential area, and hence urbanization has already altered the land. No significant natural or cultural resources are expected to be encountered since the project scope calls for modification of existing man-made infrastructure with no disturbance of lands which were previously undisturbed.

2. *The project will not curtail the range of beneficial uses of the environment.*

The proposed project is solely intended to enhance the existing beneficial uses of the urban center.

3. *The project will not 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.*

The project will not conflict with the environmental policies as set forth in the State Plan and Chapter 344, Hawaii Revised Statutes (HRS) in that the project will not damage sensitive natural resources nor emit contaminants.

4. *The project will not substantially affect the economic or social welfare of the community or State.*

There may be some negative short-term economic and social impacts as related to construction (traffic congestion, block of street frontage and noise, etc.). However, the long-term benefit is related to the safety of motorists and pedestrians along Hakimo Road.

5. *The project will not substantially affect public health.*

No impact on Public Health is anticipated. Increased safety is considered positive.

6. *The project will not involve substantial secondary impacts, such as population change or effects on public facilities.*

The project will not influence population change nor impact on existing infrastructure.

7. *The project will not involve a substantial degradation of environmental quality.*

Environmental quality will be essentially the same as that which exists prior to project implementation. The project consists of underground improvements within an existing road and right-of-way with discharge of storm runoff into an intermittent stream.

8. *The project is individually limited and will not cumulatively have a considerable effect upon the environment nor involve a commitment for larger actions.*

The proposed drainage system is limited to Hakimo and Ulehawa Roads and will not result in the requirement of other actions.

9. *The project will not substantially affect a rare, threatened or endangered species, or its habitat.*

The project area is limited to an existing road and right-of-way which are not known to sustain any habitats of threatened or endangered species.

10. *The project will not detrimentally affect air quality, water quality and ambient noise levels.*

Short-term impacts may occur during the construction of the project. However, the contractor must comply with current Department of Health regulations and must adhere to and provide Best Management Practices (BMP).

11. *The project will not affect an environmental sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*

The project site is not located in any sensitive area.

12. *The project will not substantially affect scenic vistas or view lanes as identified in County or State plans or studies.*

The proposed drainage improvements will be constructed underground within an existing road and right-of-way and will not have any affect on scenic vistas or view planes.

13. *The proposed project will not require substantial energy consumption.*

The only energy consumption involved with this project is that related to construction activities. After construction completion, energy consumption will essentially return to that which existed prior to construction.

Ms. Genevieve Salmonson
Page 4
April 10, 2002

Supplementary Information

The Final Environmental Assessment (FEA) for the proposed project and the results of the coordination and consultation undertaken with affected governmental agencies and interested parties are attached to support the notice of determination of a FONSI. The FEA is part of the environmental review process to meet the requirements of Chapter 343, HRS.

Name, Address and Phone Number of Contact for Further Information

Mr. Dennis Toyama
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Phone: 523-4756

Very truly yours,



RAE M. LOUI, P.E.
Director

DT:FK:pto

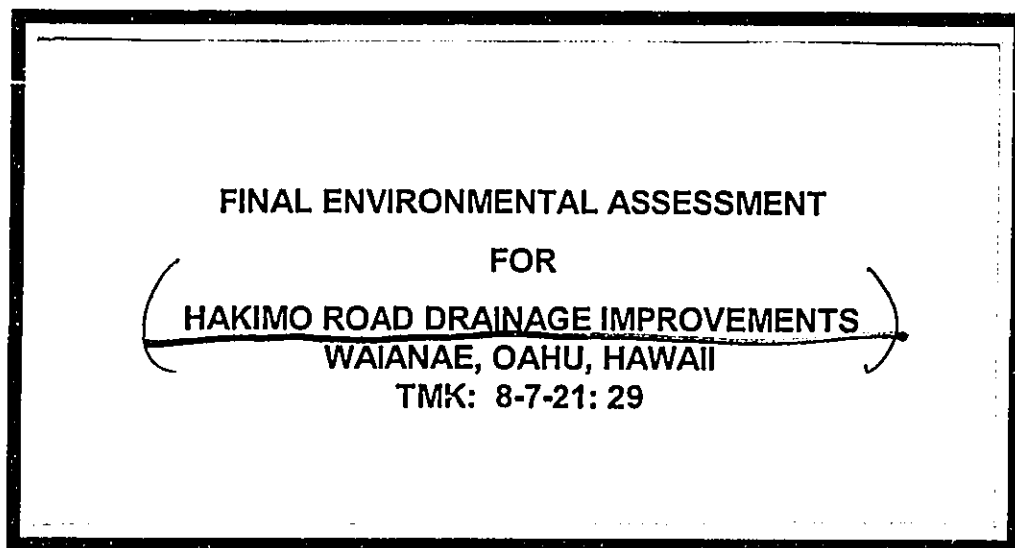
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cc: Gray, Hong, Bills, Nojima & Associates, Inc.

APR 23 2002

FILE COPY

2002-04-23-0A-FEA-



Gray • Hong • Bills • Nojima & Associates, Inc.
CONSULTING ENGINEERS

FINAL ENVIRONMENTAL ASSESSMENT
FOR
(HAKIMO ROAD DRAINAGE IMPROVEMENTS)
WAIANA'E, OAHU, HAWAII
TMK: 8-7-21: 29

PREPARED
FOR
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

PREPARED
BY
GRAY, HONG, BILLS, NOJIMA & ASSOCIATES, INC.
841 BISHOP STREET, SUITE 1100
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APRIL 2002

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**FINAL ENVIRONMENTAL ASSESSMENT
FOR
HAKIMO ROAD DRAINAGE IMPROVEMENTS
WAIANAE, OAHU, HAWAII
TMK: 8-7-21: 29**

I. AGENCY PROPOSING THE ACTION

City and County of Honolulu
Department of Design and Construction
650 South King Street
Honolulu, Hawaii 96813

II. APPROVING AGENCY

City and County of Honolulu
Department of Design and Construction
650 South King Street
Honolulu, Hawaii 96813

III. PRE-ASSESSMENT CONSULTATION

The agencies, organizations, and individuals listed below were consulted by letter prior to preparation of the Draft Environmental Assessment (EA). Comments were received from parties marked with an asterisk (*) and the comments were incorporated in the Draft EA as appropriate.

City and County of Honolulu

Board of Water Supply*
Department of Environmental Services
Facilities Maintenance Department
Fire Department*
Department of Planning and Permitting*
Police Department
Department of Transportation Services*

State of Hawaii

Department of Land and Natural Resources
Commission on Water Resource Management*
Historic Preservation Division*
Land Division

Department of Health
Office of Environmental Quality Control*
Environmental Health Administration

Federal Government

Department of the Army, Corps of Engineers, Pacific Ocean Division*

Utilities

The Gas Company*
Hawaiian Electric Company
Oceanic Cable*
Verizon Hawaii*

Community Groups/Businesses/Individuals

PVT Land Company, Ltd.
Neighborhood Board No. 24
Residents/Property Owners adjoining proposed alignment and outlet

IV. GENERAL DESCRIPTION OF THE PROPOSED ACTION

A. NEED FOR THE PROJECT

The project site is located along Hakimo and Ulehawa Roads at the eastern base of Pu'u Hulu Uka (715-foot high hill) in Nanakuli, Waianae, Oahu (refer to Figure 1). The need for the project stems from residents' complaints about severe ponding of storm water near the intersection of these two roads (refer to Figures 2 and 3). Currently, the drainage system in the area is limited to one drywell located at the low point (sag) along Hakimo Road, near the intersection with Ulehawa Road. The drywell is filled with sediment carried by storm water runoff and is hydraulically inadequate. Depending on the intensity and duration of the rainfall, standing water may remain up to a week, only to be removed by evaporation and percolation. The ponding water occurs after a blind turn on Hakimo Road, heading makai towards Farrington Highway. This creates a traffic hazard along Hakimo Road which is heavily traveled by passenger vehicles and semi-tractor trailer trucks.

B. TECHNICAL CHARACTERISTICS

The City and County of Honolulu proposes to construct an underground drainage system to alleviate the flooding occurring in the vicinity of the intersection between Hakimo Road and Ulehawa Road. This alternative was evaluated and selected in the "Engineering Report for Hakimo Road Drainage Improvements" (Gray, Hong, Bills & Associates, 1998). The following system will be designed for a drainage area of 14 acres and 50-year storm flow of

50 cubic feet per second (CFS), which will satisfy current City and County storm drainage standards (2000):

- 2,130 lineal feet (LF) of 36-inch diameter reinforced concrete pipe (RCP)
- 190 LF of 30-inch RCP
- 170 LF of 24-inch RCP
- 35 LF of 18-inch RCP
- 3 inlets
- 14 manholes
- outlet structure on the bank of Ulehawa Stream

A detailed plan and profile of the proposed drainage system may be found in Figures 4 through 6C. Inlet A is the primary structure that will collect 31 CFS from 8.9 acres of the drainage basin. As shown on Figure 6B, this inlet is located at the low point and will facilitate the conveyance of the ponding storm water to the underground drainage system. The remaining runoff (19 CFS) is intercepted by Inlets B and C.

The affected areas along Hakimo Road and Ulehawa Road will be restored to original condition, including resurfacing of entire lane widths within City rights-of-way. Because Ulehawa Road is privately owned, a drainage easement in favor of the City and County of Honolulu will also be required.

C. ECONOMIC

The construction cost for the drainage improvements is estimated at \$750,000 (Gray, Hong, Bills & Associates, 1998). This will be funded by the City and County of Honolulu. Construction is expected to begin in July 2002 and be completed by the end of the year.

D. SOCIAL

1. Public Safety

The primary focus of the proposed project is to enhance safety for motorists and pedestrians along the heavily traveled Hakimo Road. The proposed underground drainage system will convey runoff to nearby Ulehawa Stream. This is expected to eliminate flooding at the existing dry well low point located just after a blind turn near the intersection of Hakimo and Ulehawa Roads.

2. Zoning

Zoning of the proposed project site is Restricted Agricultural (Ag-1) based on the City and County of Honolulu Land Use Ordinance. The State Land

Use Map classifies the project site as Agriculture. The proposed drainage alignment discussed above does not enter Shoreline Setback of Special Management Areas. However, the project will require an easement in favor of the City and County of Honolulu, since portions of the drainline will be constructed in private property.

3. General Plan and Sustainable Communities Plan

The proposed project is consistent with the General Plan. It supports Transportation and Utilities Objective C, Policy 2 that calls for providing improvements to utilities in existing neighborhoods to reduce substandard conditions. In addition, the proposed project is consistent with the Waianae Sustainable Communities Plan (SCP). Section 2.6.f. "Environmental Criteria for Land Use Planning" and Section 4.5.2.1 recommend developing a comprehensive plan for specific drainage and roadway improvements to alleviate local flooding problems. Improvements include "...construction of new drainage channels, culverts, and other drainage structures." The proposed project will not require a revision to the Waianae Public Infrastructure.

E. ENVIRONMENTAL CHARACTERISTICS

1. Flood, Erosion, and Geological Characteristics

The project site is located in an area designated as Zone D on the Flood Insurance Rate Map (Map No. 15003C0195 E, effective November 20, 2000), where flood hazards are undetermined. However, Ulehawa Stream is normally dry and has intermittent flows only during periods of substantial rainfall. In addition, the proposed project site is not located in a tsunami evacuation zone.

The Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (U.S. Department of Agriculture Soil Conservation Service, 1972) identified the soils in the project site as Lualualei clay (LuB) and Mamala stony silty clay loam (MnC). According to the SCS, stones and coral rock fragments are common in the surface layer and in the profile of the MnC classification. Permeability is moderate. Runoff is very slow to medium, and the erosion hazard is slight to moderate. Similarly with LuB soils, runoff is slow and the erosion hazard is slight.

2. Archaeological and Historical Characteristics

Using the Hawaii State Department of Land and Natural Resources' (DLNR) database of archaeological and historic sites in Hawaii, the Lualualei Flood Study Environmental Survey (Belt Collins Hawaii, 2001) examined

archaeologically and historically significant sites in the Lualualei watershed (refer to Appendix B). This watershed includes the Ulehawa Stream basin. There were no significant areas identified in the vicinity of the proposed drainage alignment.

The State Historic Preservation Division (SHPD) of DLNR has also confirmed the absence of historic sites at the proposed project site because of prior development that has already altered the land (correspondence of November 19, 2001, refer to Appendix A). If significant sites, including human burials, are uncovered during construction, the contractor will be required to stop work and contact the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources at 692-8015.

3. Cultural Characteristics

A cultural impact study consisting of a historic background study and community consultations was conducted in November 2001 in conjunction with the proposed project in the Lualualei Ahupuaa (refer to Appendix C). *The Environmental Council's Guidelines for Assessing Cultural Impacts* (1997) provided the basis for identification of cultural or ethnic practices, resources and beliefs. The purpose of the investigation was to gather information about cultural practices and cultural features that may be affected by the proposed actions.

The accounts of Lualualei indicate that "the area contains a rich background of legendary associations" mixed with a diverse history including the establishment of Hawaiian Homesteads (Archaeological Consultants of the Pacific, 2001). The cultural informants indicated that the proposed construction activities along Ulehawa Road and Hakimo Road would have no effect on any areas of cultural and traditional importance (Archaeological Consultants of the Pacific, 2001). The final recommendation of the study (Archaeological Consultants of the Pacific, 2001, p. 14) was as follows:

"Based upon an absence of objections by the cultural informants, no obstructions to the implementation of the proposed construction project are present with regards to any areas of cultural or traditional importance."

V. SUMMARY DESCRIPTION OF THE AFFECTED ENVIRONMENT

A. FLORA AND FAUNA

Using the Hawaii Natural Heritage Program (HNHP) Database, which lists all available rare species recordings, the Lualualei Flood Study Environmental Survey (Belt Collins Hawaii, 2001) identified rare species of fauna and flora sighted within the Lualualei watershed. According to the survey, there were no sightings of endangered and significant species in the vicinity of the proposed Hakimo-Ulehawa project site (refer to Appendix D for map).

B. SURFACE WATER QUALITY

The proposed project will result in re-directed storm runoff into Ulehawa Stream. Ulehawa Stream is designated by the U.S. Geological Survey as an intermittent stream. The State Department of Health's Water Quality Standards (Chapter 54 of Title 11, Hawaii Administrative Rules) classifies intermittent streams as inland water areas. Storm runoff itself will not contain any hazardous pollutants.

C. TRAFFIC AND ROADS

Traffic along Hakimo and Ulehawa Roads will be of temporary inconvenience to motorists and pedestrians due to construction-related activities. The contractor will be required to coordinate with residents and property owners in the vicinity of the project site at least two weeks prior to the start of construction. The Oahu Transit Services, TheBus, and The Handi-Van will also be notified of any construction activities affecting their respective services prior to the start of construction.

Traffic control plans will be developed by a registered civil engineer and submitted to DPP Traffic Review Branch for review and approval. Access to all affected residences will be maintained throughout the duration of the proposed project construction.

D. AIR QUALITY

Air quality can be impacted by traffic volumes and temporary construction-related impacts. Since traffic volumes will remain essentially identical to current levels, no significant effects are anticipated.

With respect to construction-related impacts, licensed contractors are required to maintain construction equipment in proper working order to ensure no violations and are subject to enforcement actions if found in non-compliance. Activities associated with the construction phase of the project will comply with Chapter 60 of Title 11, Hawaii Administrative Rules, Air Pollution Control.

E. NOISE

Noise levels in this developed residential area are anticipated to be identical prior to and after project implementation. Noise related to construction activities are primarily controlled by hours of operation. All construction will be limited to daytime hours. Activities associated with the construction phase of the project will comply with Chapter 46 of Title 11, Hawaii Administrative Rules, Community Noise Control.

F. WATER SYSTEMS

The public water service in the area is provided by the Board of Water Supply. No additional services will be required, but some infrastructure such as fire hydrants will be relocated.

G. SEWER SYSTEMS

The project will not require additional sewer service.

H. DRAINAGE SYSTEMS

The proposed underground drainage system will provide adequate hydraulic capacity which will significantly reduce flooding at the existing dry well. Runoff will be conveyed to Ulehawa Stream.

I. ELECTRIC/CABLE UTILITIES

The project area is currently served by aerial facilities. There are no anticipated conflicts; however, construction plans will be submitted for review and approval by affected agencies. Additional electrical, telephone or cable service will not be required for this project.

J. GAS UTILITIES

The Gas Company currently maintains underground gas mains in the proposed project vicinity. Additional service will not be required for this project.

VI. SUMMARY OF MAJOR IMPACTS

A. SHORT-TERM

The actual construction phase of the project will cause disruption of every day routine activities in the area. This could affect access to properties, increase traffic congestion and construction-related nuisances including increased

sediment runoff during storm runoff events and increased noise levels. In addition, the visual appearance of construction barriers and scarred pavement including metal plates is aesthetically unappealing. However, these impacts by definition are short-term.

B. LONG-TERM

The only identifiable long-term impact is considered to be related to the benefits of the project which will permanently reduce flooding in the vicinity of the intersection between Hakimo and Ulehawa Roads. During periods of prolonged and/or intense rainfall, the proposed drainage system will convey runoff to the intermittent Ulehawa Stream. The existing roads to be affected by construction of the drainage improvements will be restored to original condition.

VII. ALTERNATIVES CONSIDERED

In addition to the proposed action described above, three alternatives are discussed as follows:

A. ALTERNATIVE 1 - UNDERGROUND DRAINAGE SYSTEM TO EXISTING BOX CULVERT

An alternative examined in the "Engineering Report for Hakimo Road Drainage Improvements" (Gray, Hong, Bills & Associates, 1998) was the construction of an underground drainage system entirely within Hakimo Road (refer to Figure 7). A drainline would be installed from Ulehawa Road to Paakea Street, discharging into an existing reinforced concrete box culvert near the intersection with Paakea Street. A portion of this drainline would slope adversely to the existing road, resulting in depths up to 20 feet.

The existing box culvert (20' wide X 6' high) was originally designed for a 165 acre-drainage basin and flow of 850 CFS into the Ulehawa Stream gully (Negative Declaration for the Hakimo Road Box Culvert, March 23, 1979). However, the box culvert was filled with approximately 3.5 feet of rock backfill, thus the actual capacity of the culvert has been significantly reduced. Hydraulic analysis of a cross section taken 10 feet downstream of the box culvert indicated that the gully could not adequately convey 850 CFS. In order to handle the 850 CFS from the culvert plus the additional 50 CFS from the proposed drainline, the gully would need to be re-graded to match the downstream invert of the culvert with a minimum base width of 20 feet and 0.4% minimum slope and 2:1 wide slopes. Construction of the underground drainage system for this alternative alone (not including re-grading of the existing gully) would cost roughly 20 percent more than the proposed system.

B. ALTERNATIVE 2 - CLEAN OUT DRYWELL AND REMOVE DIRT BERM

This alternative involves cleaning out the drywell and removing the dirt berm along the super-elevated side of the road. Removing the existing dirt berm will reduce the extent of ponding at the low point in Hakimo Road; however, this will increase the amount of storm water runoff entering the properties fronting the berm.

This option is not recommended because the drywell is inadequately sized to accommodate design flows. It is likely the drywell will continue to fill with sediment upon subsequent rainfall. Storm water would continue to collect at the low point and remain a traffic hazard.

C. ALTERNATIVE 3 - NO ACTION

Under the No Action alternative, runoff would continue to flood the vicinity of the intersection between Hakimo and Ulehawa Roads during periods of heavy rainfall. This would continue to cause serious traffic hazards to motorists and pedestrians along the heavily traveled Hakimo Road. This alternative is not an acceptable course of action because it exposes the public to unacceptable risk every time it rains.

VIII. MITIGATION MEASURES

A. CONSTRUCTION ACTIVITIES

During construction, normal requirements for mitigation of construction impacts will be utilized. These requirements include traffic control, compliance with BMP requirements, compliance with hours prescribed for construction to minimize noise impacts, and compliance with businesses and their normal hours of operation through direct contact. Proposed BMPs are as follows:

- (1) All loose material and small tools and equipment will be removed from the construction site after each work day is completed.
- (2) City-approved area(s) away from the stream bed to store or stockpile construction related materials and equipment will be designated prior to the start of construction.
- (3) Removed vegetation, debris and unsuitable excavated materials will be properly disposed at a site approved by the City.
- (4) All hazardous or toxic waste will be disposed of in the manner specified by federal, state or local regulations or the manufacturer.

- (5) All sanitary waste from portables will be collected and disposed of properly.
- (6) All solid waste from the site will be stored in a securely lidded dumpster within or adjacent to the project site. The dumpster will be emptied as needed at least on a daily basis, and the trash will be hauled to a City-approved site.
- (7) Any debris and other deleterious material will be contained and prevented from entering State waters.
- (8) Materials to be placed in State waters will be free of waste metal products, organic materials, objectionable debris and any other pollutants at concentrations toxic or potentially hazardous to aquatic life.
- (9) Temporary berms consisting of sand bags will be used to divert any stream flow from the working area.
- (10) Silt curtains will be installed downstream of the working area should there be any flow into Ulehawa Stream.
- (11) Visual monitoring will be performed by the contractor on a daily basis or following any storm event of 0.5" or greater. The contractor will inspect all control measures including silt curtains and berms to ensure that they are maintained in good working condition. Necessary repairs will be initiated by the contractor within 24 hours of notification or observation.
- (12) Rocks, soil or debris will not be allowed to fall, slide or flow onto adjoining properties.
- (13) Graded areas and exposed surfaces will be kept well watered whenever feasible. At the end of each work day, the project site will be sufficiently dampened so as to remain moist overnight.
- (14) Construction will be done during dry weather so that there is low or no flows into Ulehawa Stream. The contractor will be required to temporarily suspend work during periods of heavy rain. All erosion control measures will be inspected following any storm event of 0.5" or greater.
- (15) Equipment shall be inspected daily to ensure that oil leaks do not occur. Equipment shall be stored away from the ditch or stream bed. Fueling and lubricating of equipment and motor vehicles will be conducted away from the stream bed and in a manner to protect against spills and evaporation. Lubricants and excess oils will be disposed of in accordance with applicable federal, state and local regulations.

In addition, utility services should not be disrupted during construction activities. The contractor will be required to verify locations, protect utilities during construction and ensure no interruption of services on all utilities in the vicinity of the project site during construction. Access to fire apparatus will be maintained throughout the construction site and any interruption to the existing fire hydrant system during construction will be reported to the Fire Communication Center (phone 523-4411) by the contractor.

B. LONG-TERM OPERATION

Currently there are no mitigation plans, since it is believed the total project benefits are in concert with the community's vision.

IX. PERMITS REQUIRED FOR PROJECT

A. CITY AND COUNTY OF HONOLULU

Grubbing, Grading, and Stockpiling Permit	DPP
Permit to Excavate Public Right-of-Way (Trenching)	DPP
Street Usage Permit	DTS

B. STATE OF HAWAII

Community Noise Control Permit	DOH
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C. FEDERAL

There are no federal permits required for the proposed project.

X. FINDINGS AND REASONS TO SUPPORT THE DETERMINATION

It is anticipated that the proposed project will not significantly impact the environment, and therefore a Finding of No Significant Impact (FONSI) is anticipated. It is not anticipated that the preparation and processing of an Environmental Impact Statement will be required for this project. This statement of findings is based on an evaluation of the significance criteria listed in Chapter 200-12b of Title 11, Hawaii Administrative Rules, described as follows:

- a. ***The project will not involve an irrevocable commitment to loss or destruction of any natural or cultural resources.***

The site is already fully developed and no significant natural or cultural resources are expected to be encountered since the project scope calls for modification of existing man-made infrastructure with no disturbance of lands which were previously undisturbed.

- b. ***The project will not curtail the range of beneficial uses of the environment.***

The proposed project is solely intended to enhance the existing beneficial uses of the urban center.

- c. ***The project will not 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.***

The project will not conflict with the environmental policies as set forth in the State Plan and Chapter 344, Hawaii Revised Statutes (HRS) in that the project will not damage sensitive natural resources nor emit contaminants.

- d. ***The project will not substantially affect the economic or social welfare of the community or State.***

There may be some negative short-term economic and social impacts as related to construction (traffic congestion, blockage of street frontage and noise, etc.). However, the long-term benefit is the safety of motorists and pedestrians along Hakimo Road.

- e. ***The project will not substantially affect public health.***

No impact on Public Health is anticipated. Increased safety is considered positive.

- f. ***The project will not involve substantial secondary impacts, such as population change or effects on public facilities.***

The project will not influence population change nor impact on existing infrastructure.

- g. *The project will not involve a substantial degradation of environmental quality.***

Environmental quality will be essentially the same as that which exists prior to project implementation. The project consists of underground improvements within an existing roadway with discharge of storm runoff into an intermittent stream.

- h. *The project is individually limited and will not cumulatively have a considerable effect upon the environment nor involves a commitment for larger actions.***

The proposed drainage system is limited to Hakimo and Ulehawa Roads and will not result in the requirement of other actions. Existing roads to be affected by construction of the drainage improvements will be restored to original condition.

- i. *The project will not substantially affect a rare, threatened or endangered species, or its habitat.***

The project area is limited to an existing roadway which is not known to sustain any habitats of threatened or endangered species.

- j. *The project will not detrimentally affect air quality, water quality or ambient noise levels.***

Short-term impacts may occur during the construction of the project. However, the contractor must comply with current Department of Health regulations and must adhere to and provide Best Management Practices (BMP) practices.

- k. *The project will not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.***

The project site is not located in any sensitive area.

- l. *The project will not substantially affect scenic vistas or view lanes as identified in County or State plans or studies.***

The proposed drainage improvements will be constructed underground within an existing roadway and will not have any effect on scenic vistas or view planes.

m. *The proposed project will not require substantial energy consumption.*

The only energy consumption involved with this project is that related to construction activities. After construction completion, energy consumption will essentially return to that which existed prior to construction.

XI. SUMMARY OF UNRESOLVED ISSUES

There are no known unresolved issues.

XII. LIST OF AGENCIES, ORGANIZATIONS OR PRIVATE INDIVIDUALS THAT WERE NOTIFIED OF THE PUBLIC COMMENT PERIOD

The following is a list of government agencies, organizations or individuals that were notified regarding the 30-day public comment period for the Draft EA. Copies of comments received and written responses may be found in Appendix A.

Federal Government:

Department of the Army, Corps of Engineers, Pacific Ocean Division

State Government:

Department of Business, Economic Development and Tourism
Office of Planning

Department of Health
Environmental Health Administration
Office of Environmental Quality Control

Department of Land and Natural Resources
Commission on Water Resource Management
Historic Preservation Division
Land Division

Office of Hawaiian Affairs

State Representative Michael Kahikina

State Senator Colleen Hanabusa

City and County Government:

Board of Water Supply
Department of Environmental Services
Department of Facility Maintenance
Department of Parks and Recreation
Department of Planning and Permitting
Department of Transportation Services
Fire Department
Honolulu City Council
Police Department

Other Organizations:

Waianae Coast Neighborhood Board No. 24
The Gas Company
Hawaiian Electric Company
Oceanic Cable
PVT Land Company, Ltd.
Verizon Hawaii, Inc.

Residents along Hakimo and Ulehawa Roads:

Manuel T. Alagao
Takemi Arakawa Tr. Est.
Maximo C. Baoec Trust, et al.
John R Bates, et al.
Church of Jesus Christ LDS
Church of World Messianity
Joe W. and Hoaliku L. Drake
Cali K. Gullion
Shizuko Kadota, et al.
Filomena Lagrimas Trust
Marcellino C. Miguel, Sr. Trust
Mituso Omura, et al.
Maurice and Jane S. Oshiro
Leslie A. and Janice Y Tabernigg
Mary M. Townsend Trust
Ulehawa Farm Incorporated

XIII. LIST OF PERSONS, FIRMS OR AGENCIES THAT PREPARED THE STATEMENT

The following list identifies the persons, firms, and government agency involved with the preparation of the environmental assessment for the proposed action.

1. David B. Bills, Senior Vice President EA Project Manager
 Gray, Hong, Bills, Nojima & Associates, inc.
2. Joseph Kennedy Cultural Impact Study
 Archaeological Consultants of the Pacific, Inc.
3. Dennis Toyama, Civil Engineer Project Coordinator
 Civil Design and Engineering Division
 Department of Design and Construction
 City and County of Honolulu

BIBLIOGRAPHY

- Archaeological Consultants of the Pacific. 2001. A Cultural Impact Study for the Hakimo Road Drainage Improvements Project in Lualualei Ahupuaa. (Prepared for Gray, Hong, Bills, Nojima & Associates, Inc.)
- Belt Collins Hawaii. 2001. Lualualei Flood Study Environmental Survey. (Prepared for U.S. Army Corps of Engineers, Pacific Ocean Division.)
- City and County of Honolulu, Department of Planning and Permitting. 2000. Rules and Regulations Relating to Storm Drainage Standards.
- City and County of Honolulu, Department of Public Works. 1979. Negative Declaration for Hakimo Road Box Culvert.
- Gray, Hong, Bills & Associates, Inc. 1998. Engineering Report for Hakimo Road Drainage Improvements. (Prepared for City and County of Honolulu.)

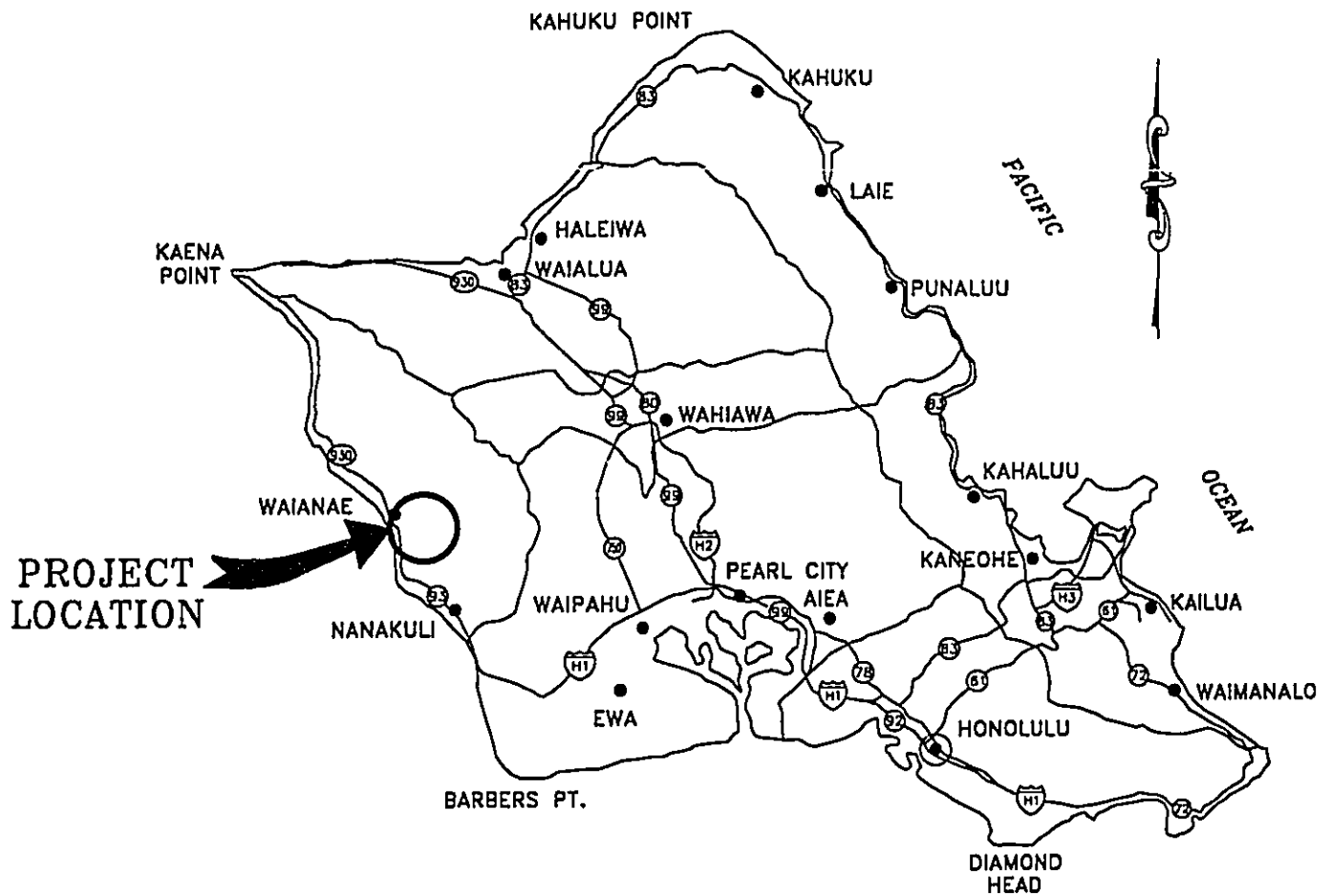



FIGURE 1

Prepared For: Department of Design & Construction
City & County of Honolulu

	GRAY, HONG, BILLS, NIJIMA & ASSOC., INC. CONSULTING ENGINEERS 641 BISHOP STREET SUITE 110C
	HAKIMO ROAD DRAINAGE IMPROVEMENTS SAUNAE, OAHU, HAWAII
VICINITY MAP	
SHEET OF SHEETS	

C&D DFC NO. 2714-1621
 DATE: NOVEMBER 8, 2001

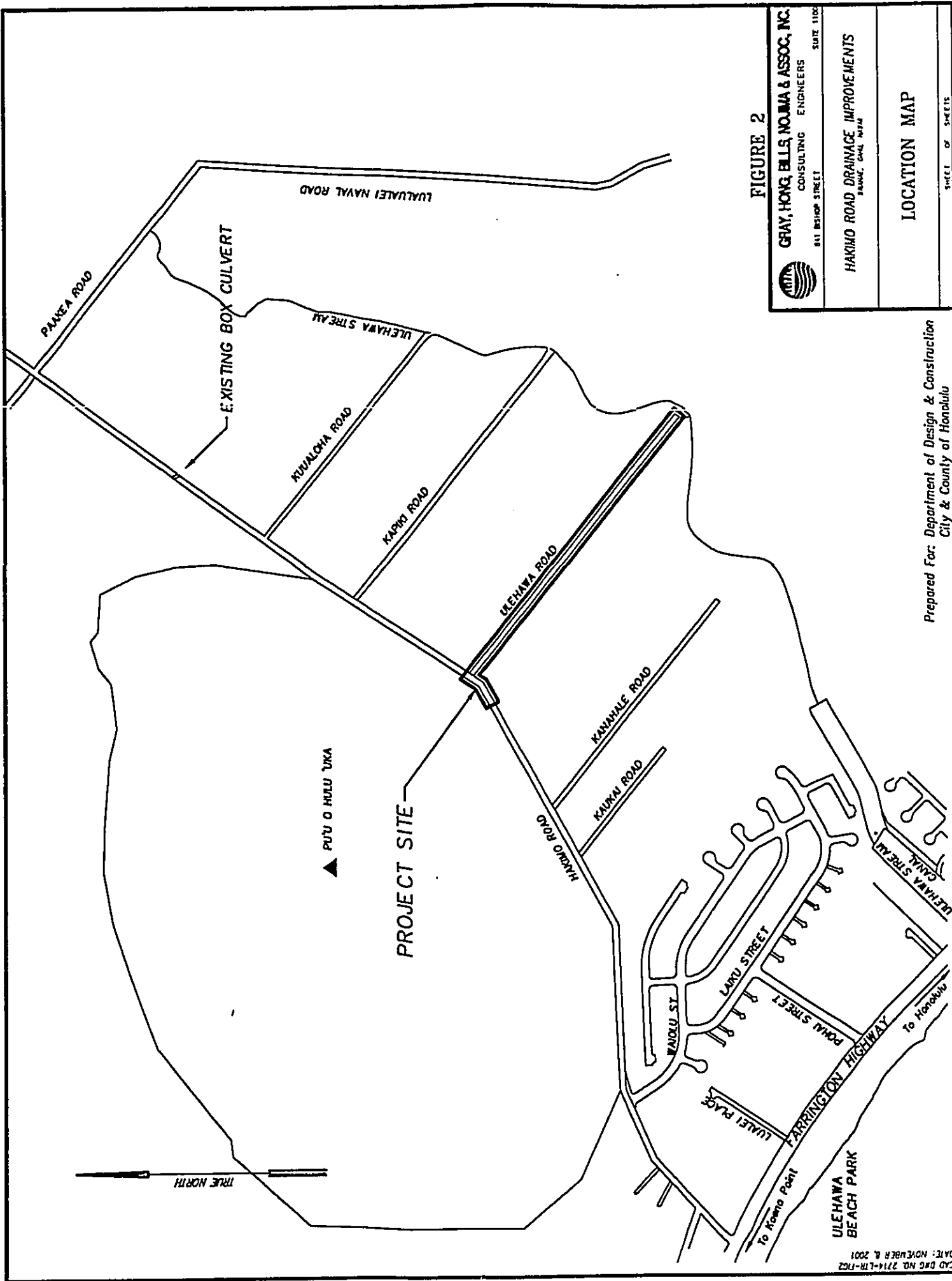



FIGURE 2


GRAY, HONG, ELLIS, NOUMA & ASSOC., INC.
 CONSULTING ENGINEERS
 811 BISHOP STREET SUITE 1100

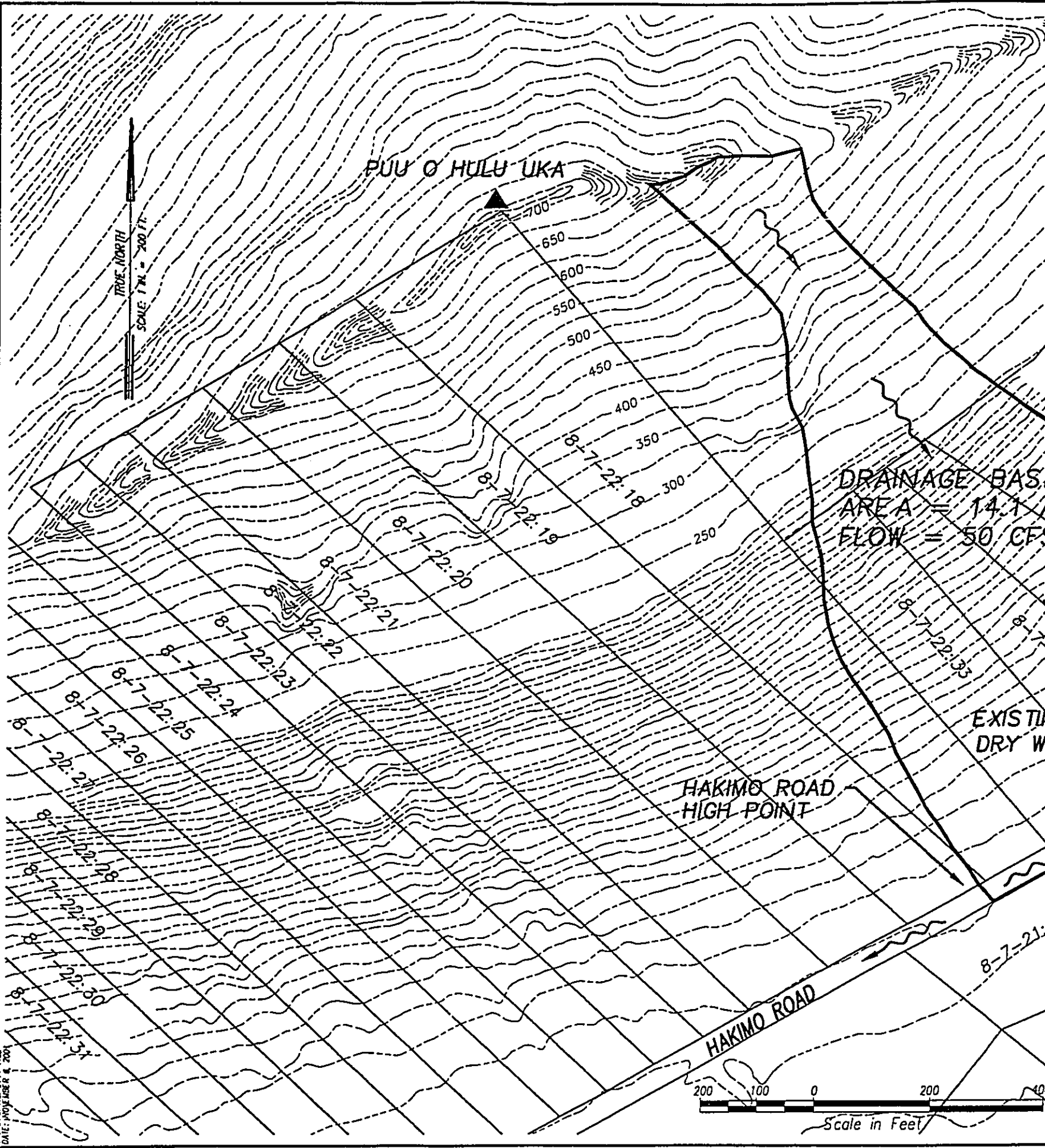
HAKIMO ROAD DRAINAGE IMPROVEMENTS
 PANEA, OAHU, HAWAII

LOCATION MAP

SHEET OF SHEETS

Prepared For: Department of Design & Construction
 City & County of Honolulu

CAD DRG NO. 2714-LR-TR2
 DATE: NOVEMBER 8, 2001



PUU O HULU UKA

TRUE NORTH
SCALE 1" = 200 FT.

DRAINAGE BASIN
AREA = 14.1 ACRES
FLOW = 50 CFS

HAKIMO ROAD
HIGH POINT

EXISTING
DRY W...

200 100 0 200 400
Scale in Feet

DATE: NOVEMBER 6, 2001

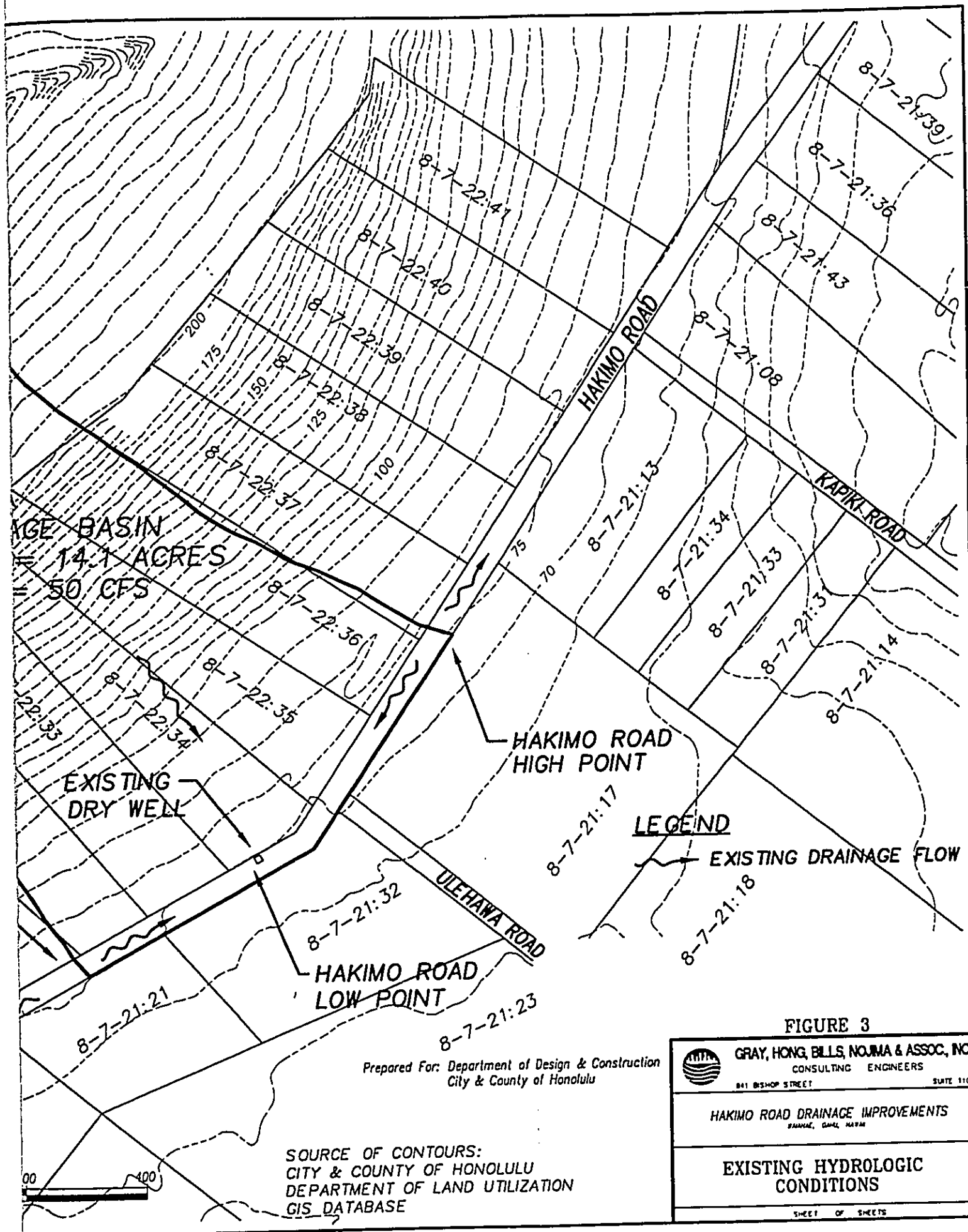

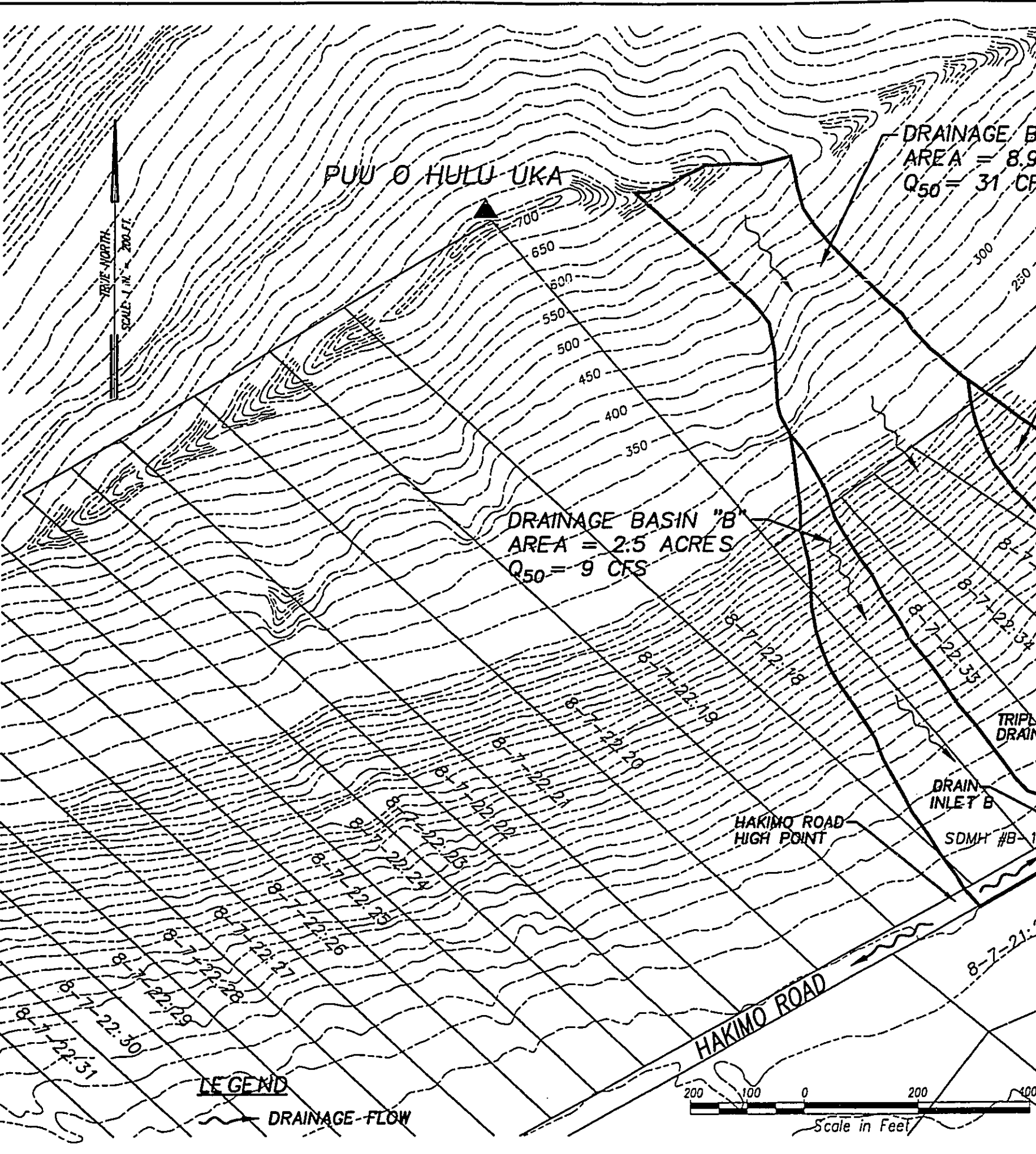


FIGURE 3

	GRAY, HONG, BILLS, NOJIMA & ASSOC., INC. CONSULTING ENGINEERS <small>841 BISHOP STREET SUITE 110C</small>
	HAKIMO ROAD DRAINAGE IMPROVEMENTS <small>KAHAE, GALE, HAWAII</small>
EXISTING HYDROLOGIC CONDITIONS	
<small>SHEET OF SHEETS</small>	

Prepared For: Department of Design & Construction
City & County of Honolulu



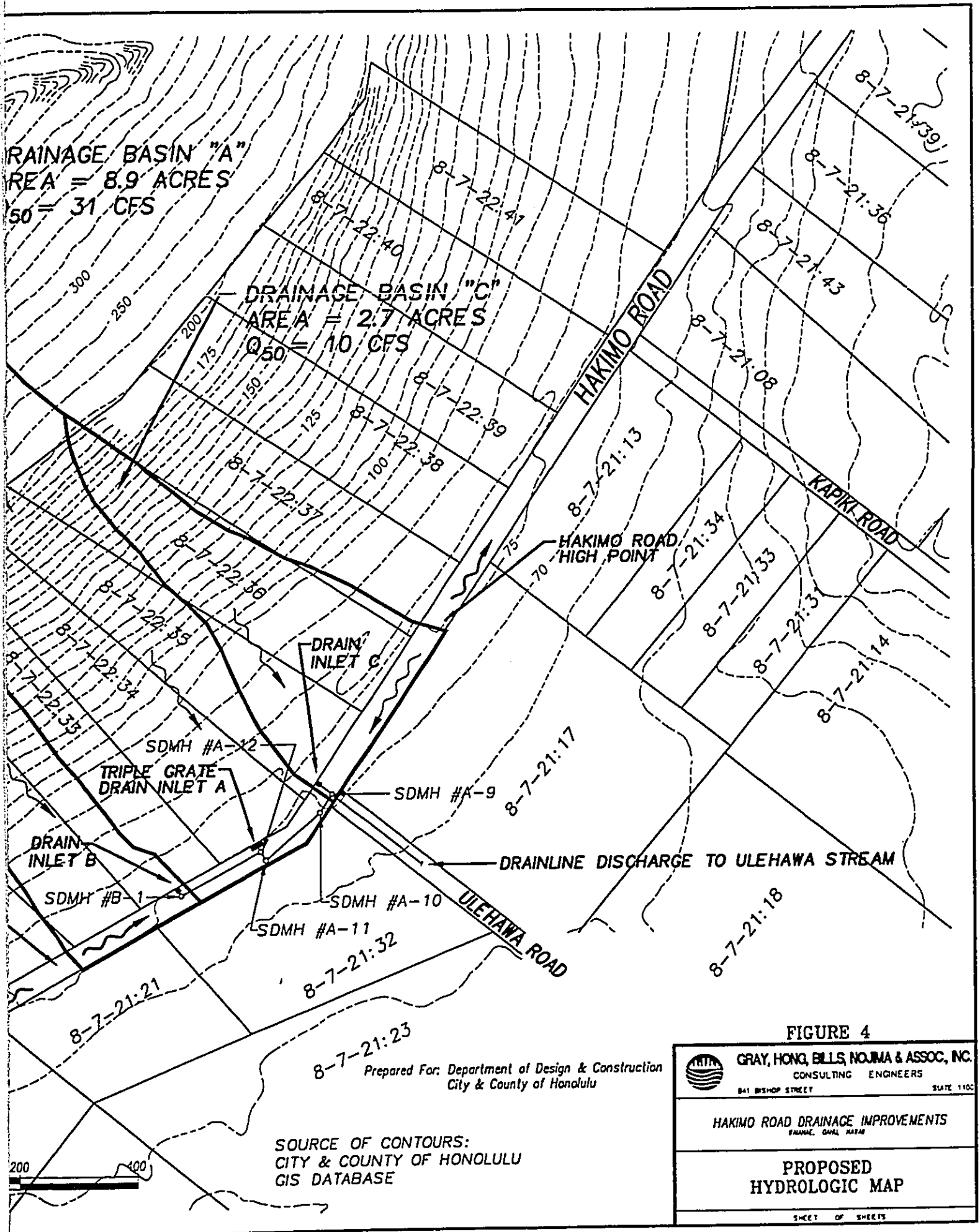

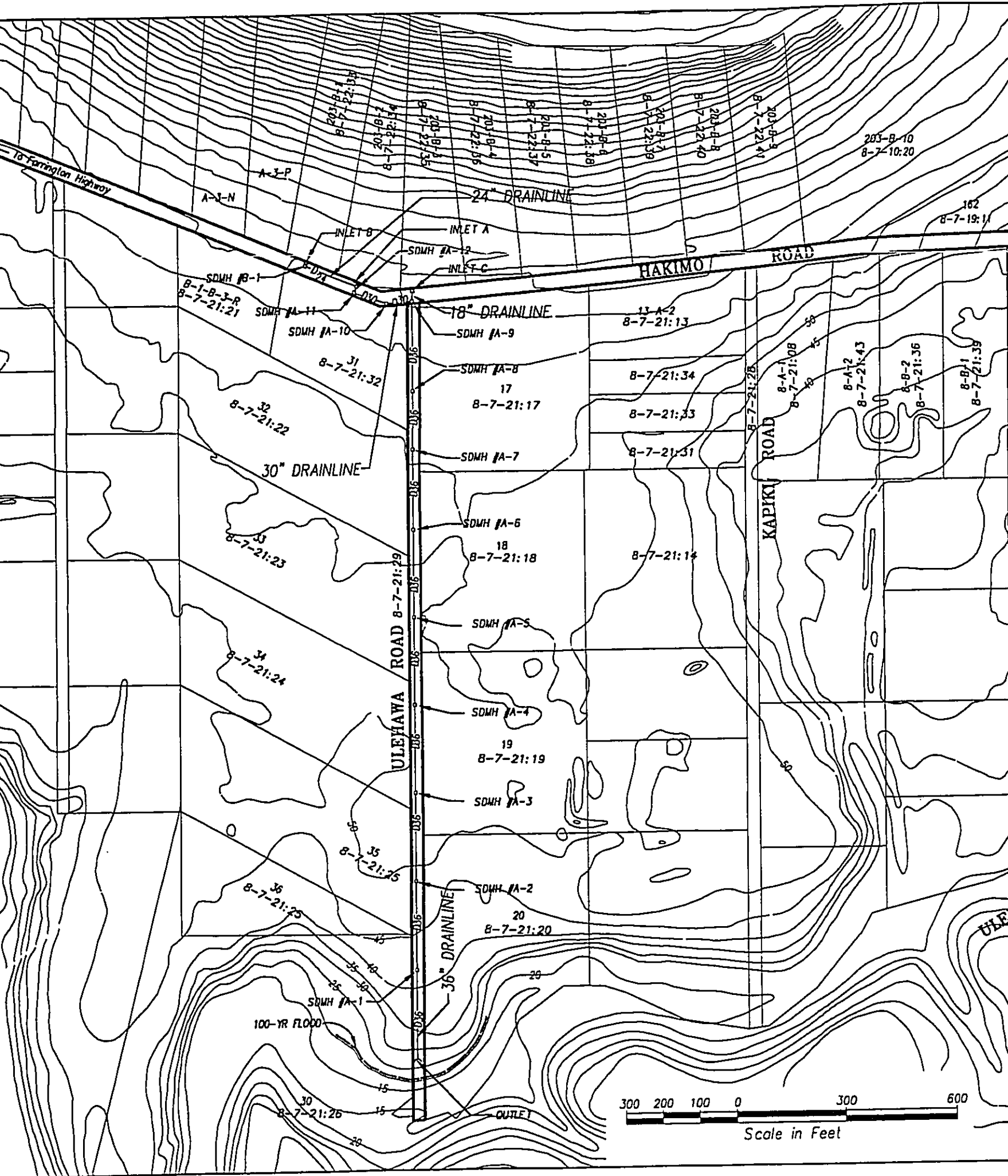
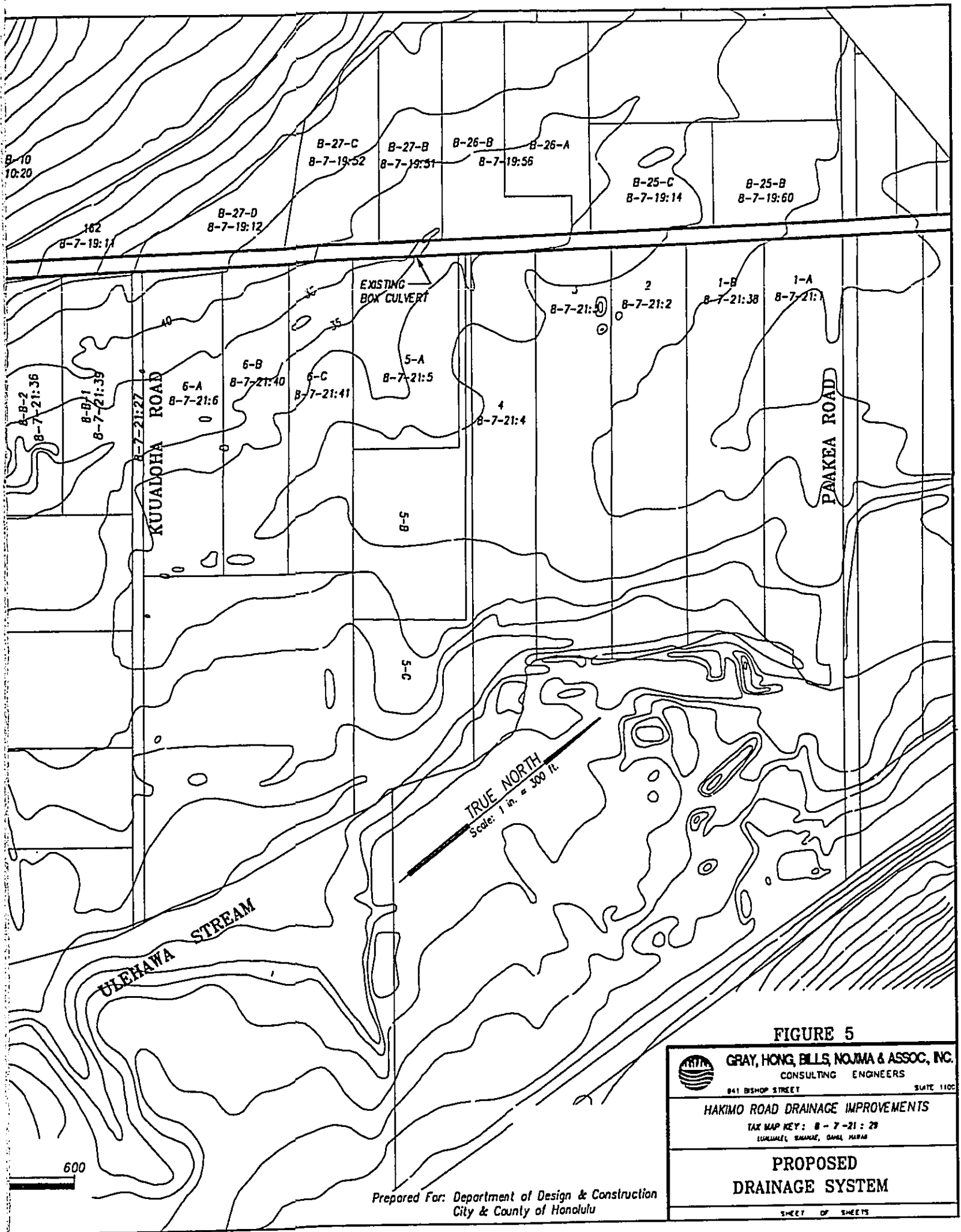


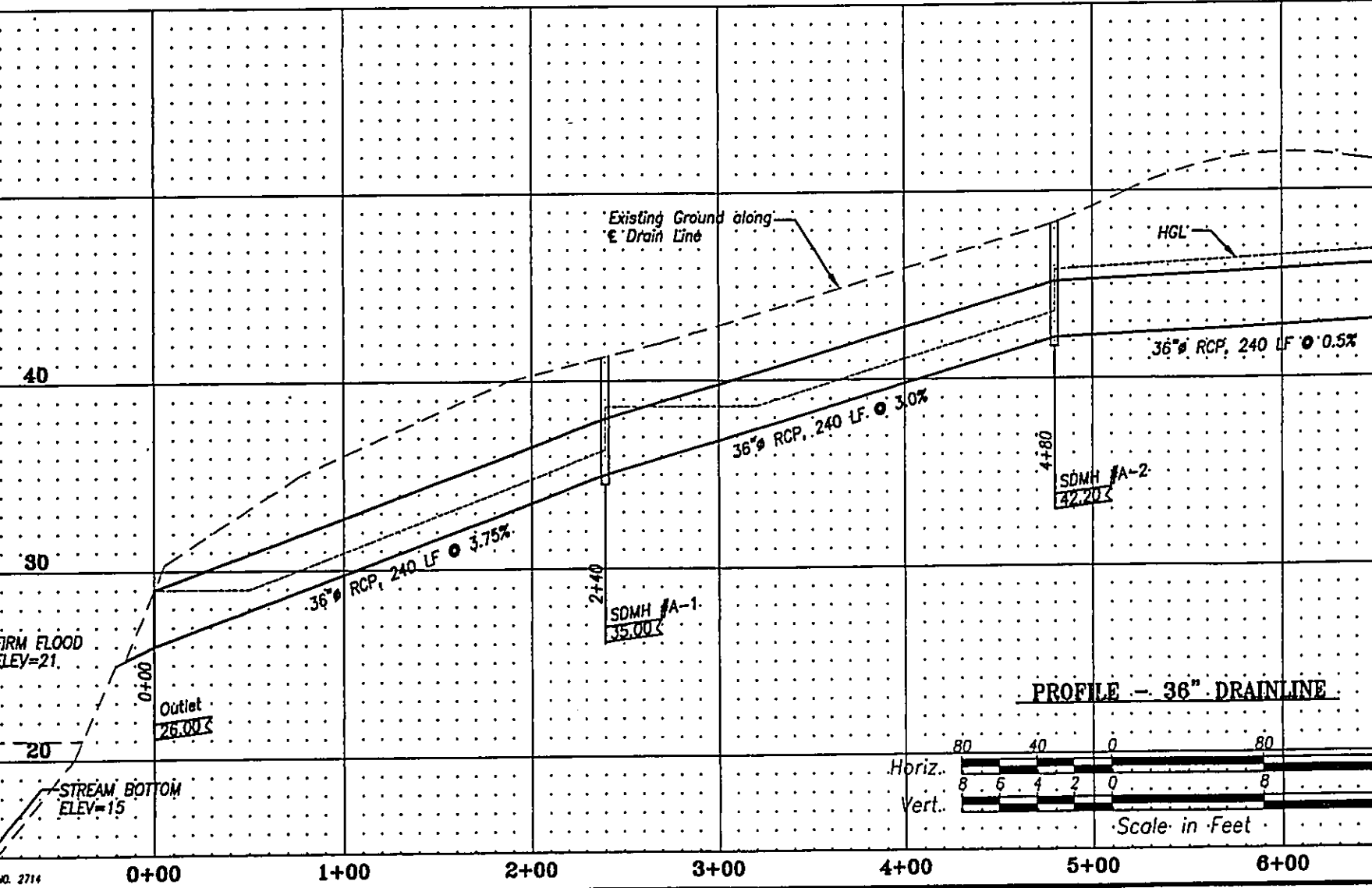
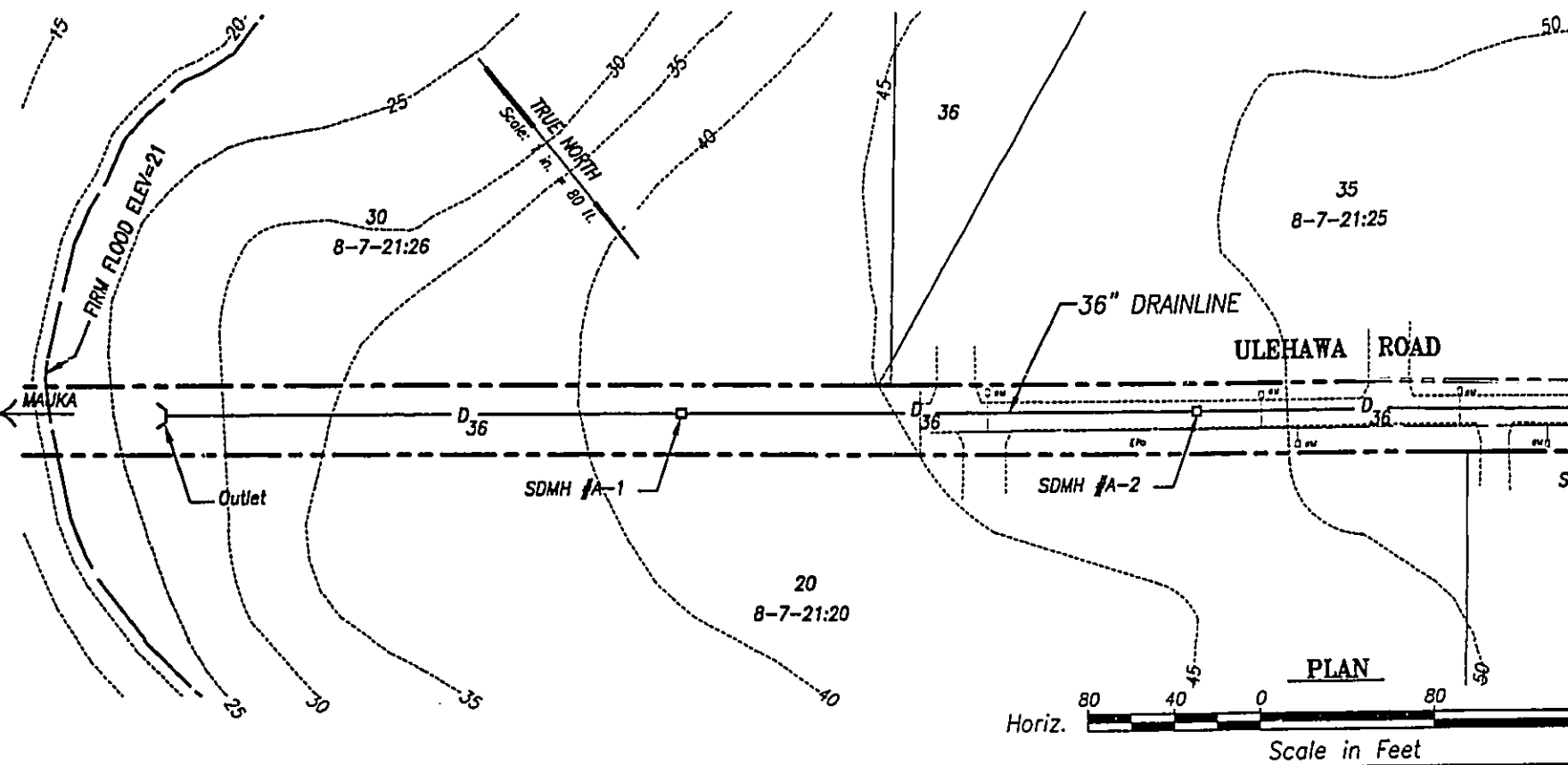
FIGURE 4

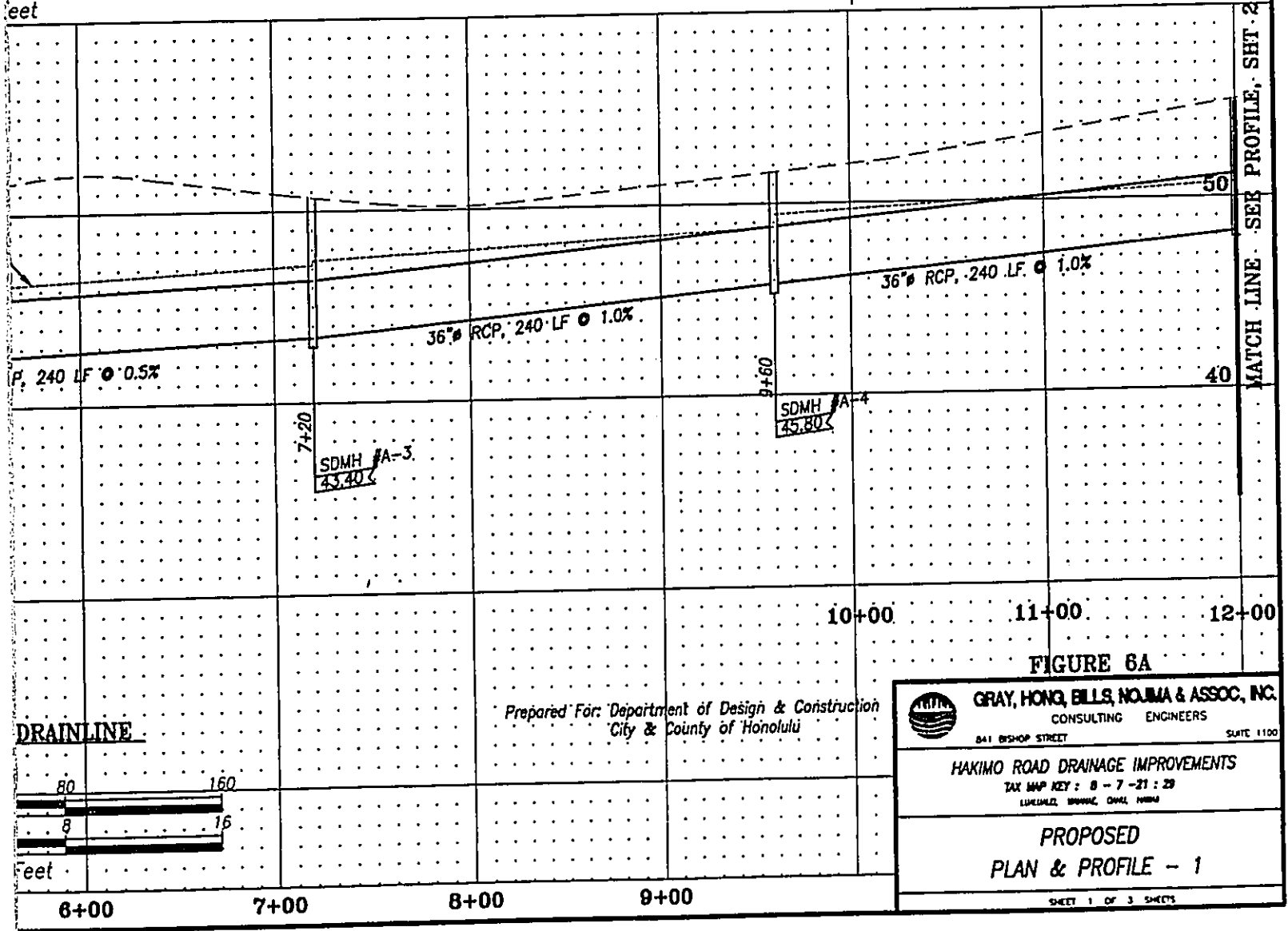
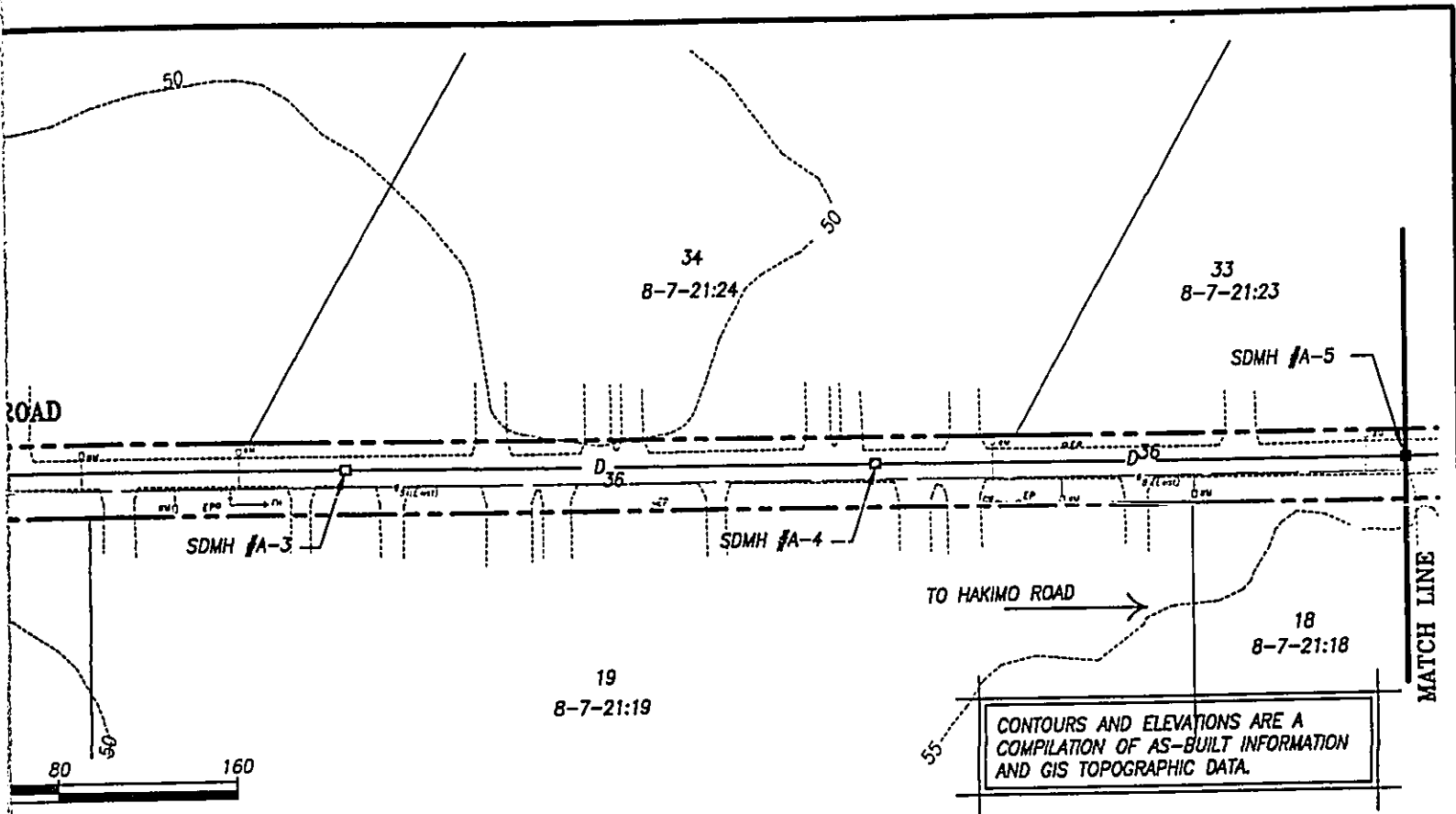
	GRAY, HONG, BILLS, NOJIMA & ASSOC., INC. CONSULTING ENGINEERS <small>841 BISHOP STREET SUITE 1102</small>
	HAKIMO ROAD DRAINAGE IMPROVEMENTS <small>PHASE 1, GROUND PLAN</small>
PROPOSED HYDROLOGIC MAP	
<small>SHEET OF SHEETS</small>	

Prepared For: Department of Design & Construction
 City & County of Honolulu







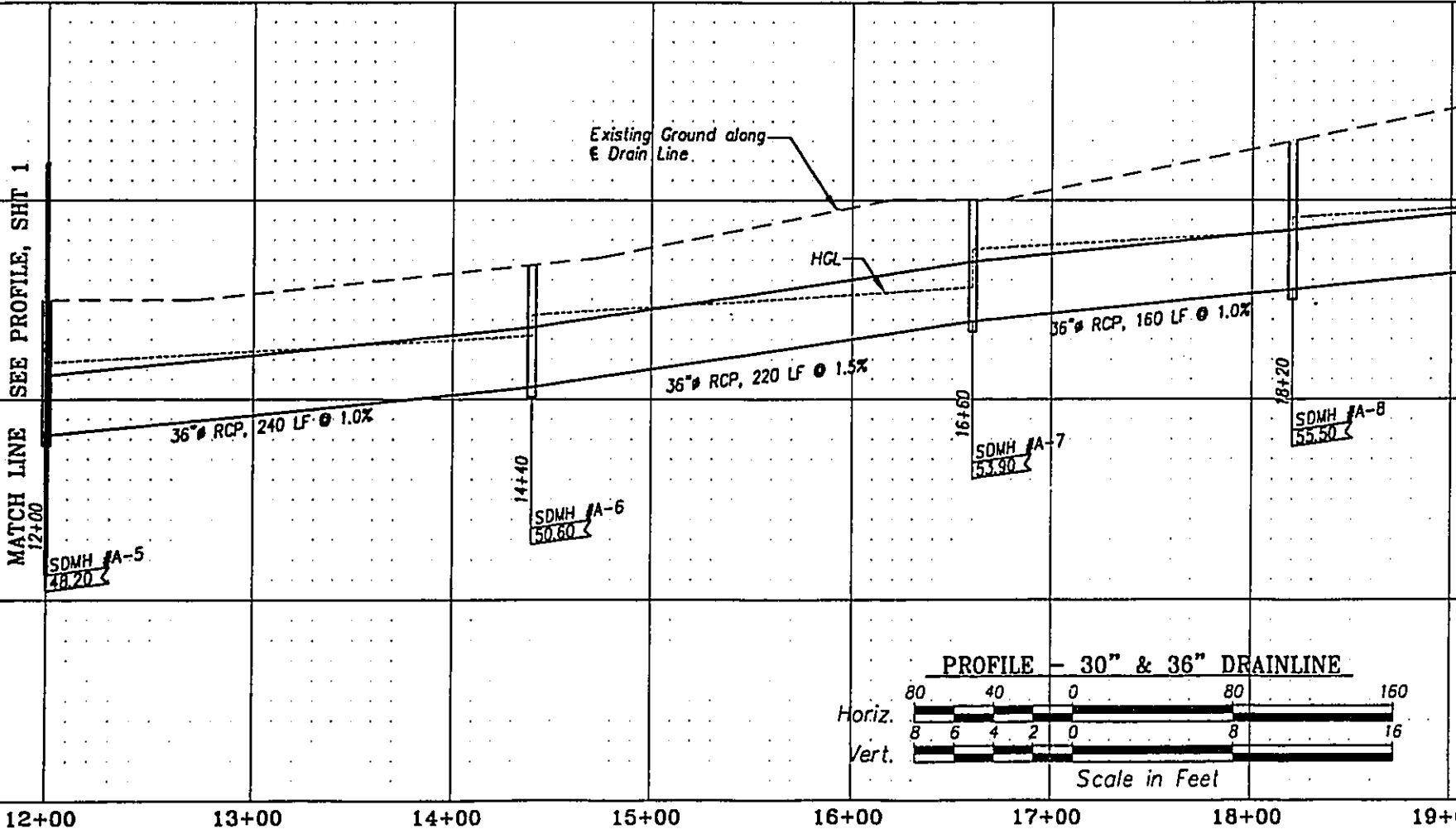
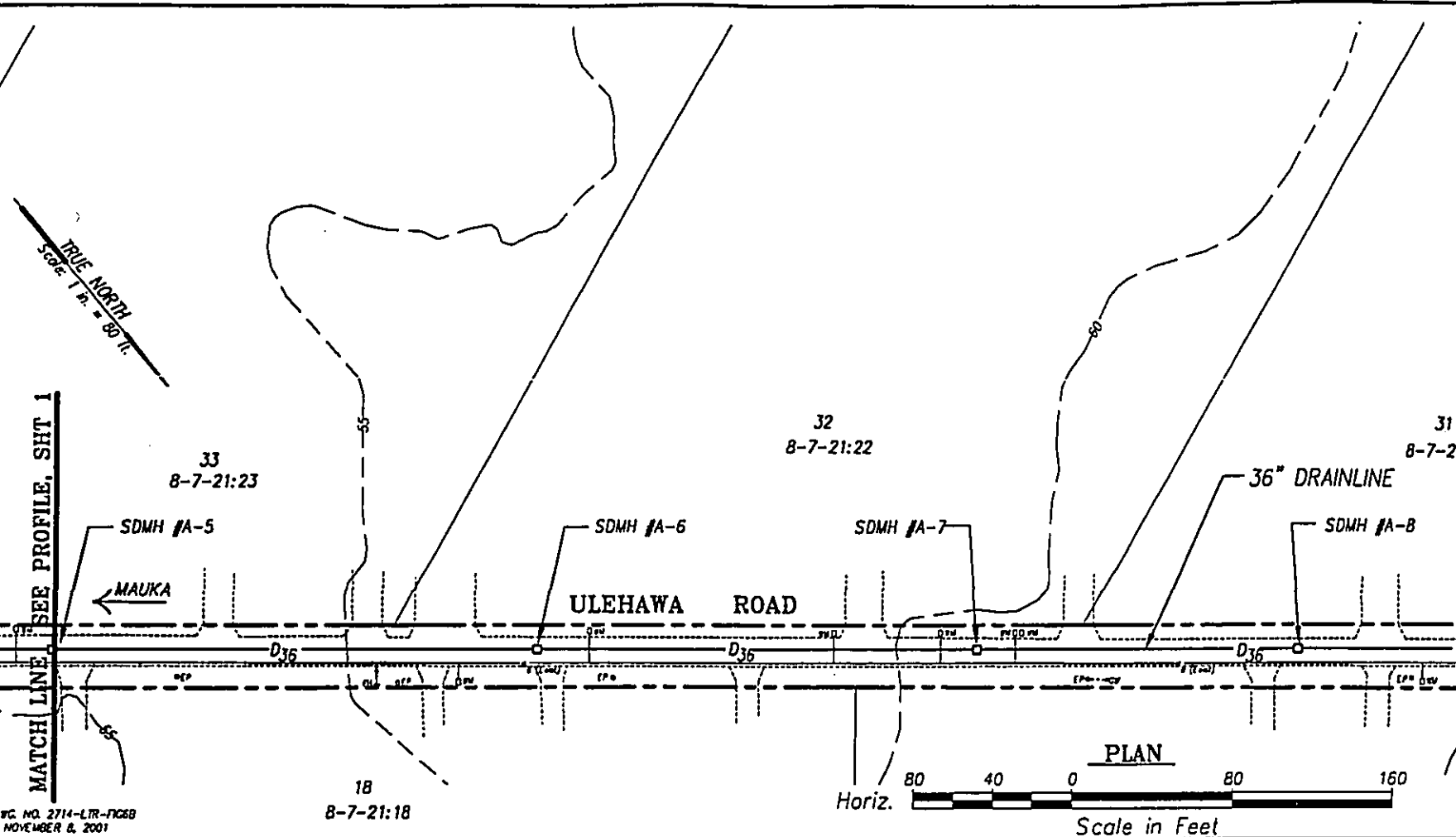


GRAY, HONG, BILLS, NOJIMA & ASSOC., INC.
CONSULTING ENGINEERS
841 BISHOP STREET SUITE 1100

HAKIMO ROAD DRAINAGE IMPROVEMENTS
TAX MAP KEY: 8-7-21:29
LUMELAL, IMAHIG, OVAL, HONG

**PROPOSED
PLAN & PROFILE - 1**

SHEET 1 OF 3 SHEETS



VC. NO. 2714-LTR-FIC88
NOVEMBER 6, 2001

MATCH LINE SEE PROFILE, SHT 1

MATCH LINE SEE PROFILE, SHT 1

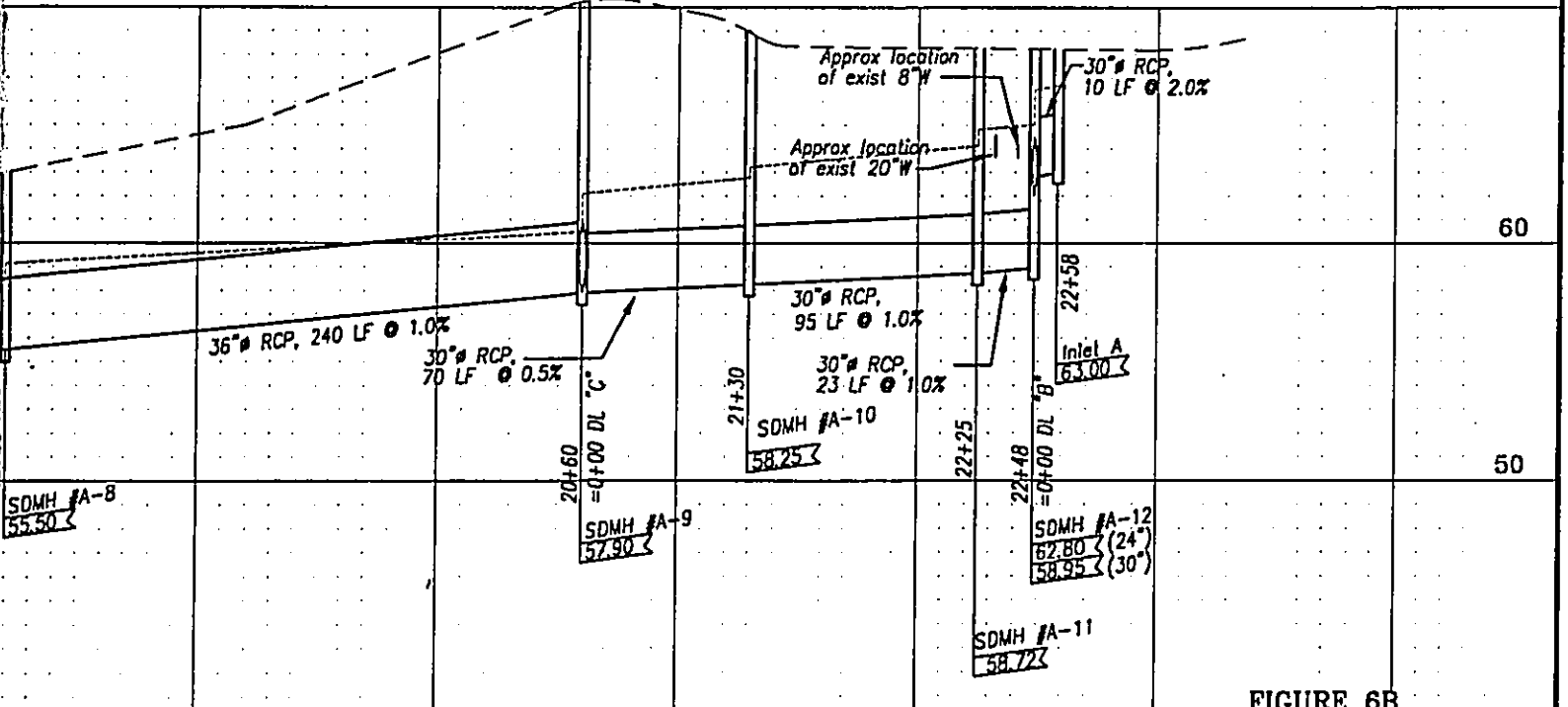
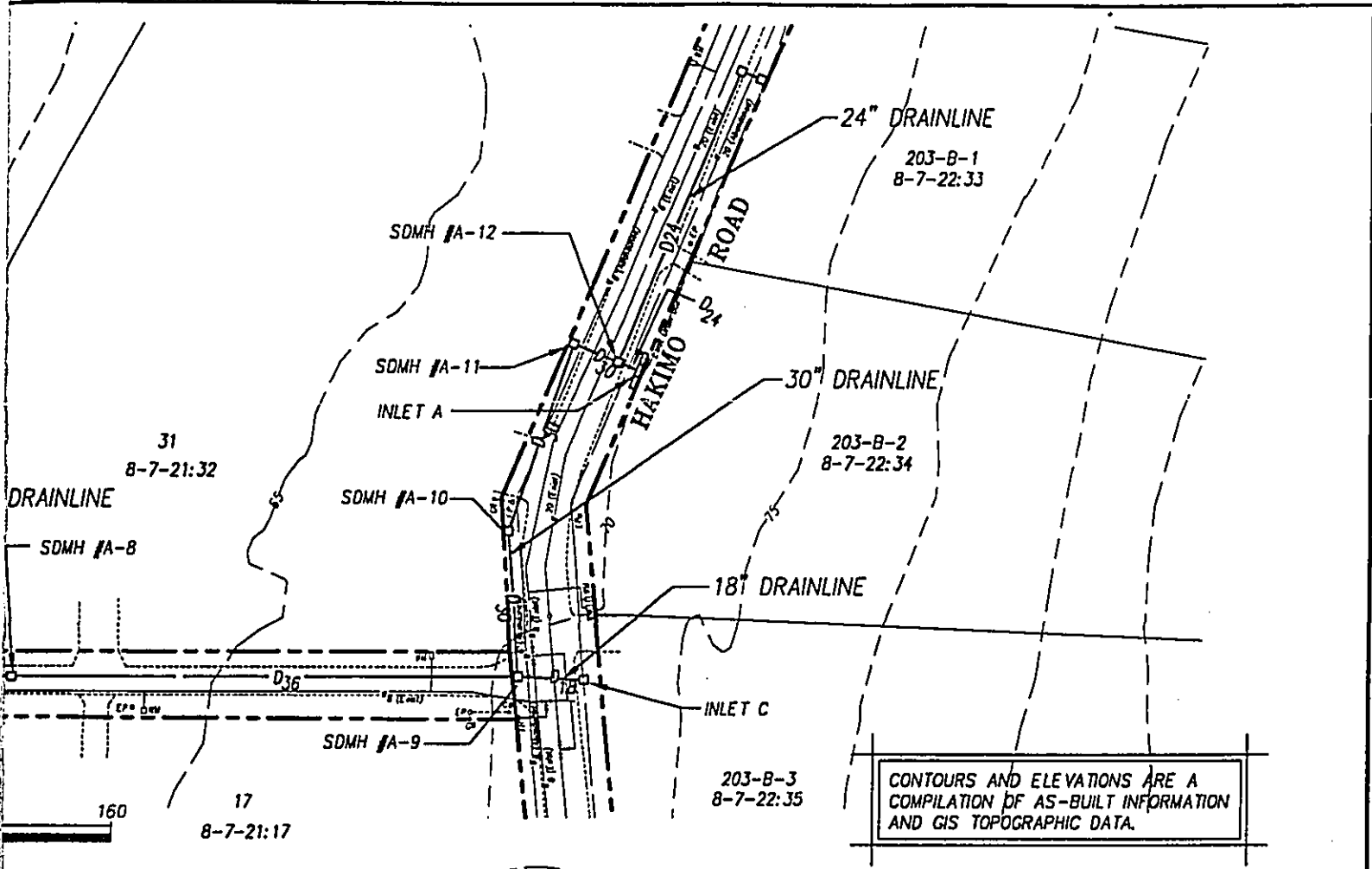


FIGURE 6B

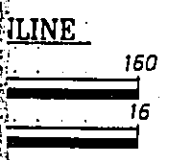
Prepared For: Department of Design & Construction
City & County of Honolulu

 **GRAY, HONG, BILLS, NUJMA & ASSOC., INC.**
CONSULTING ENGINEERS
841 BISHOP STREET SUITE 1100

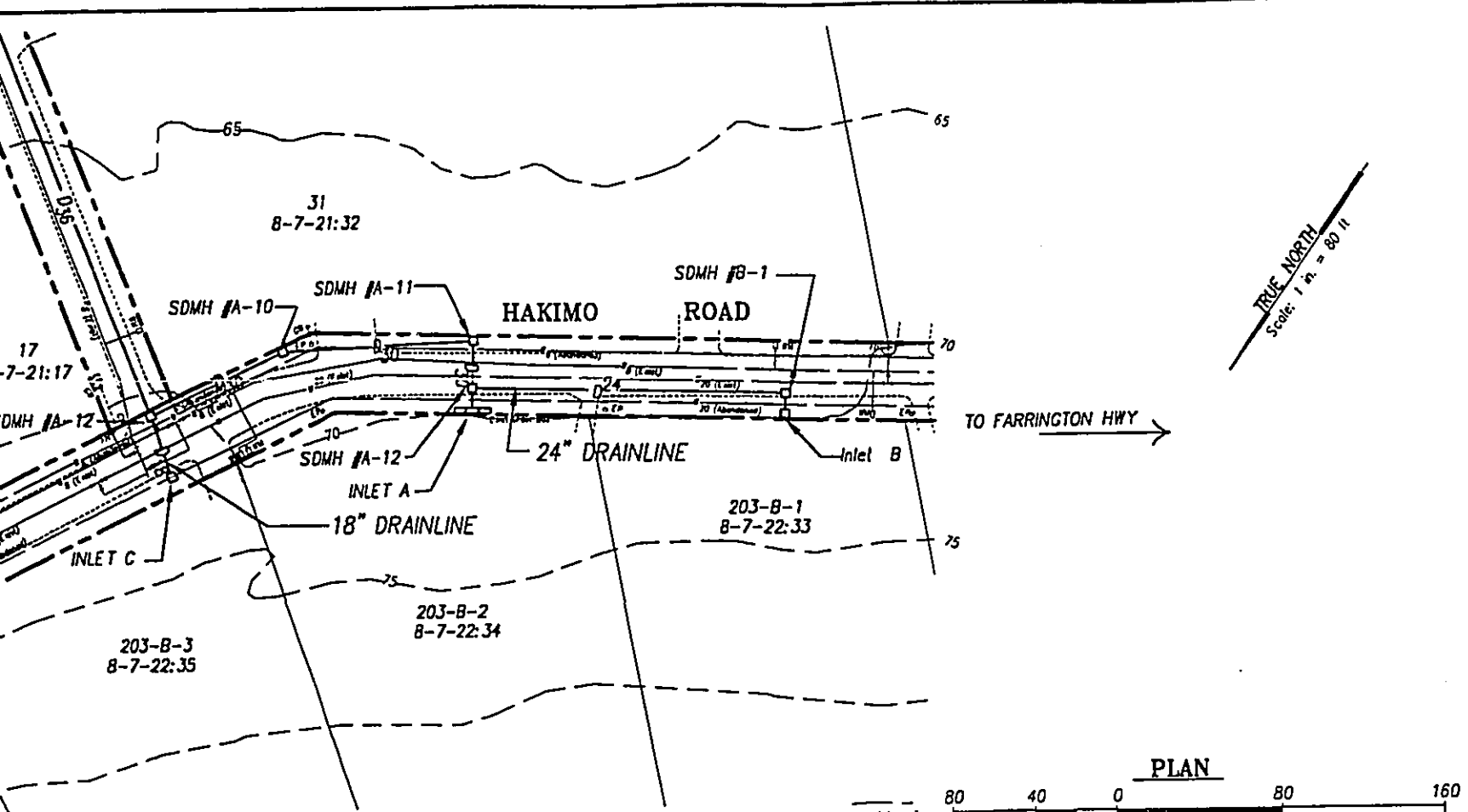
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TAX MAP KEY: 8-7-21:29
LUALABA, BANAHAE, GAKU NAPA

**PROPOSED
PLAN & PROFILE - 2**

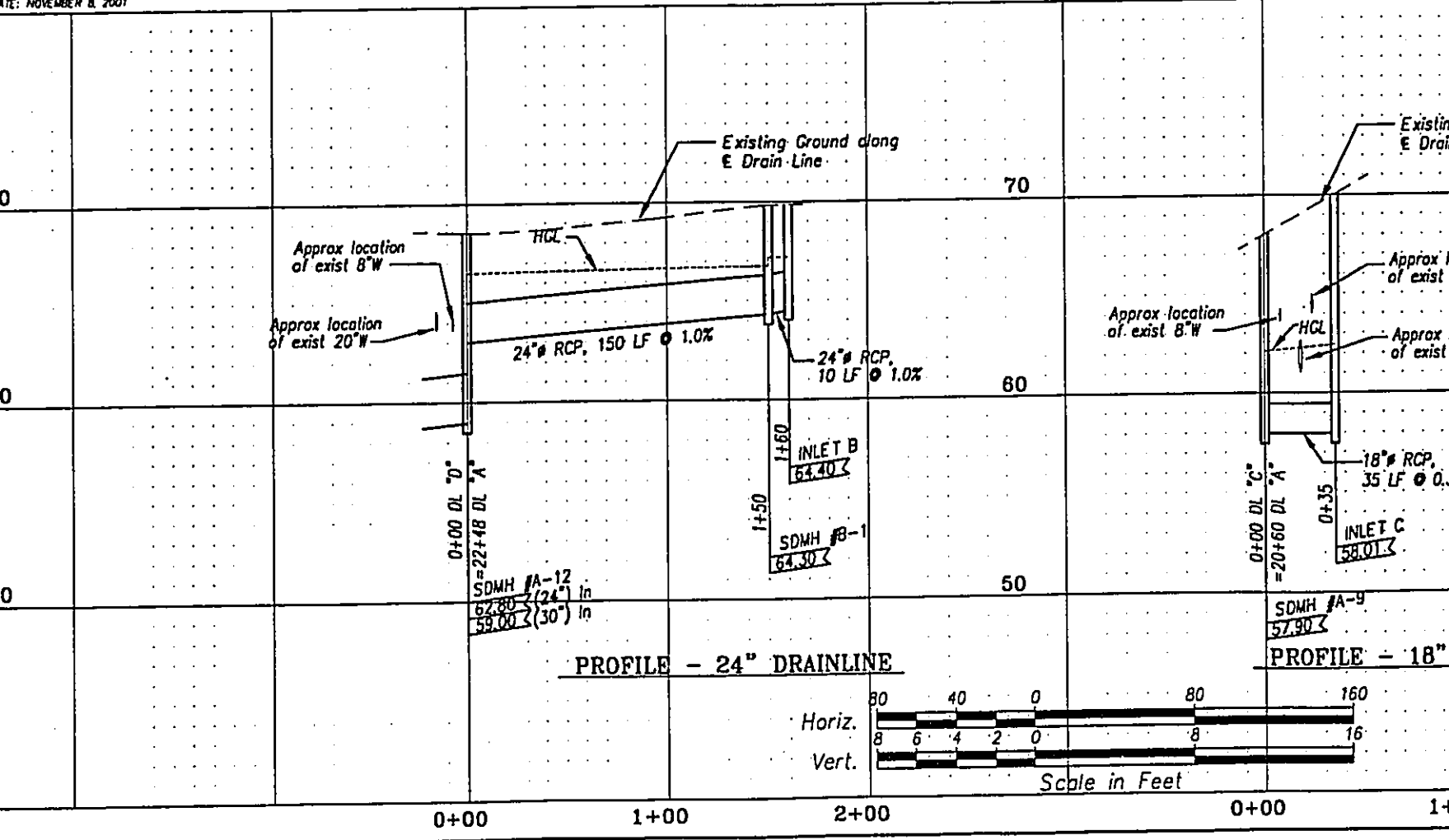
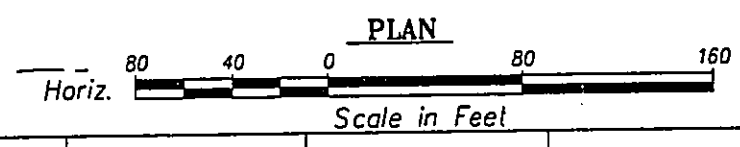
SHEET 2 OF 3 SHEETS



19+00 20+00 21+00 22+00



AD DWG. NO. 2714-LTR-PCSC
 DATE: NOVEMBER 8, 2001



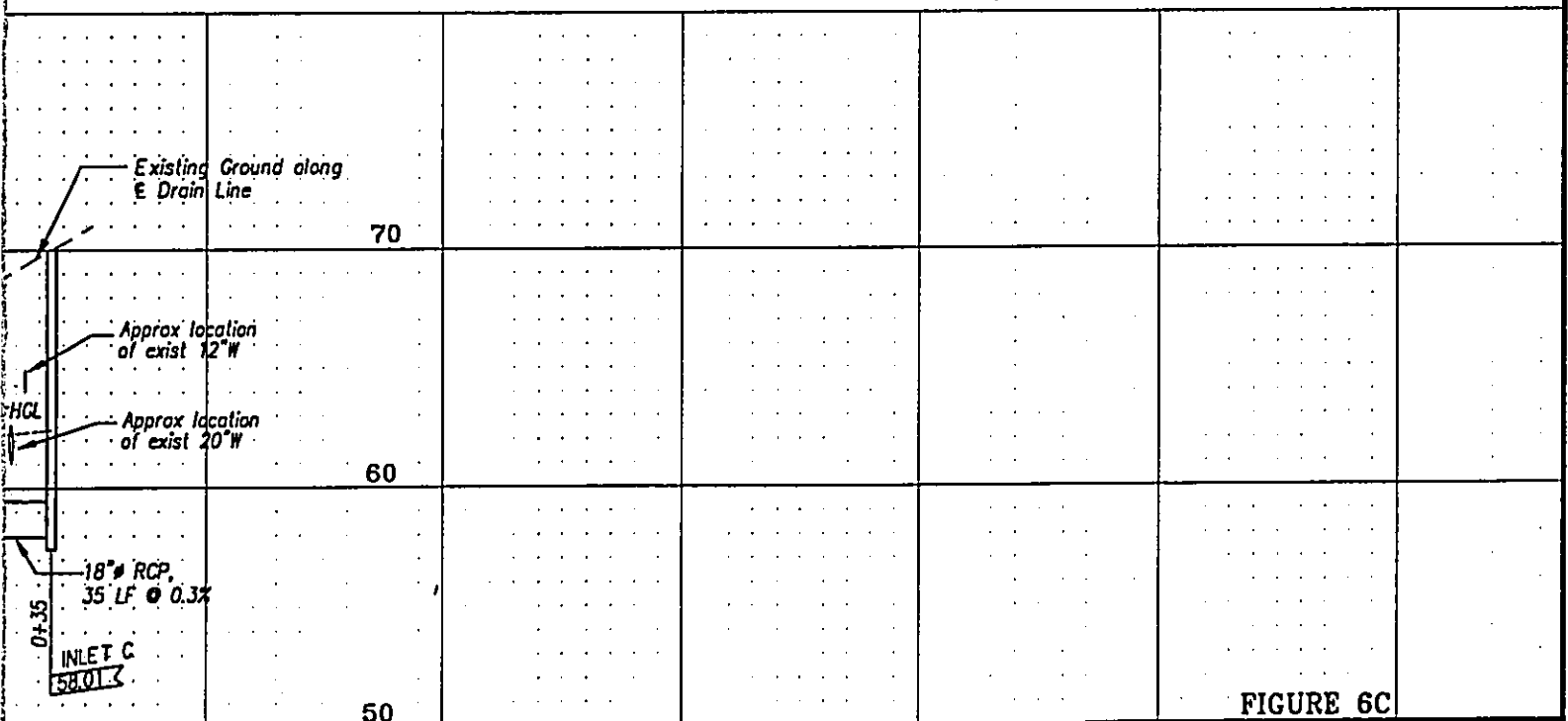
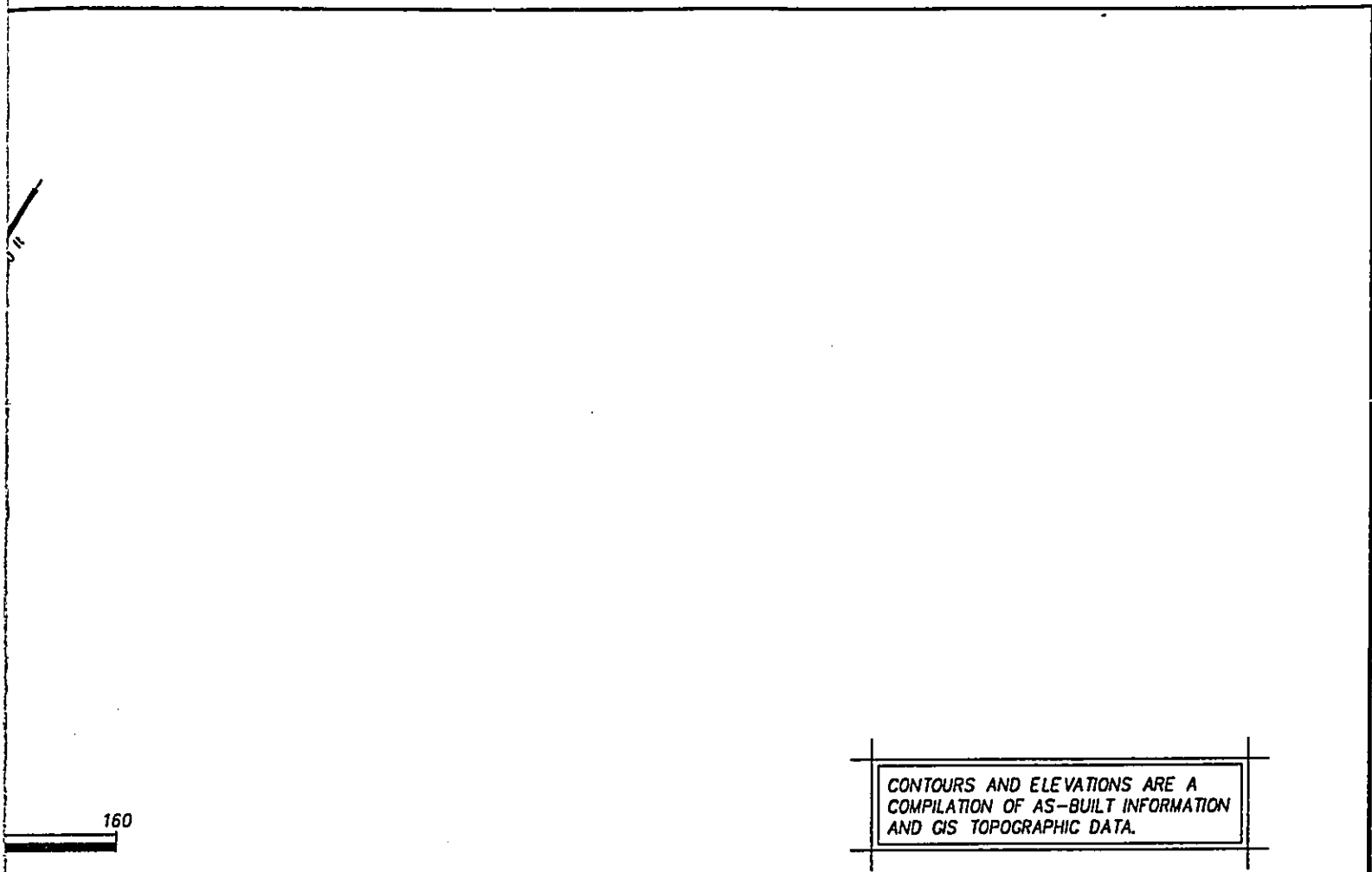


FIGURE 6C

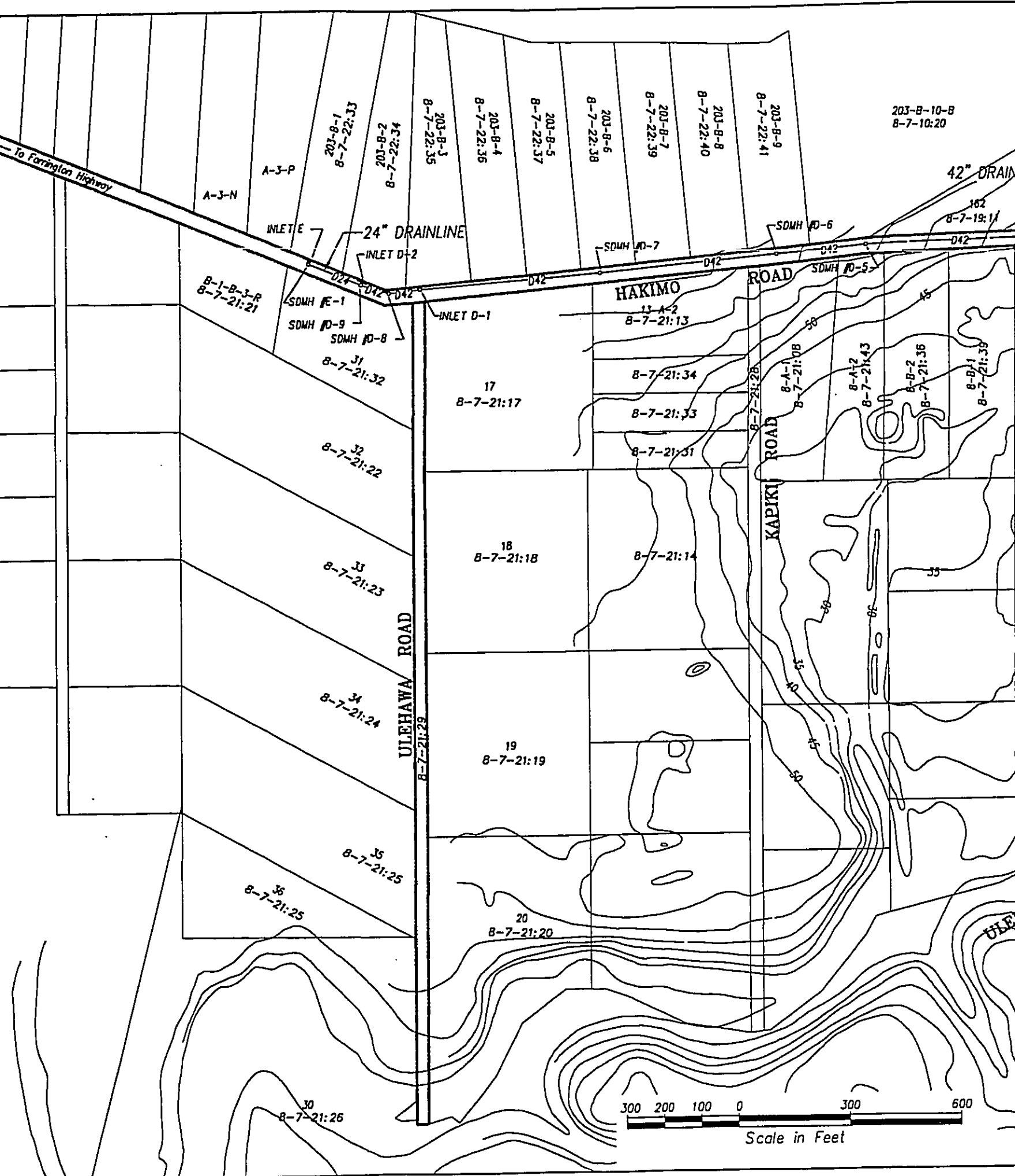
MH #A-9
 903
PROFILE - 18" DRAINLINE
 160
 16
 1+00

Prepared For: Department of Design & Construction
 City & County of Honolulu

 **GRAY, HONG, BILLS, NOJIMA & ASSOC., INC.**
 CONSULTING ENGINEERS
 841 BISHOP STREET HONOLULU, HAWAII 96813

HAKIMO ROAD DRAINAGE IMPROVEMENTS
 TAX MAP KEY: 8-7-21:29
 (LUALABA, KAHUA, CAHAI, MAHA)

**PROPOSED
 PLAN & PROFILE - 3**



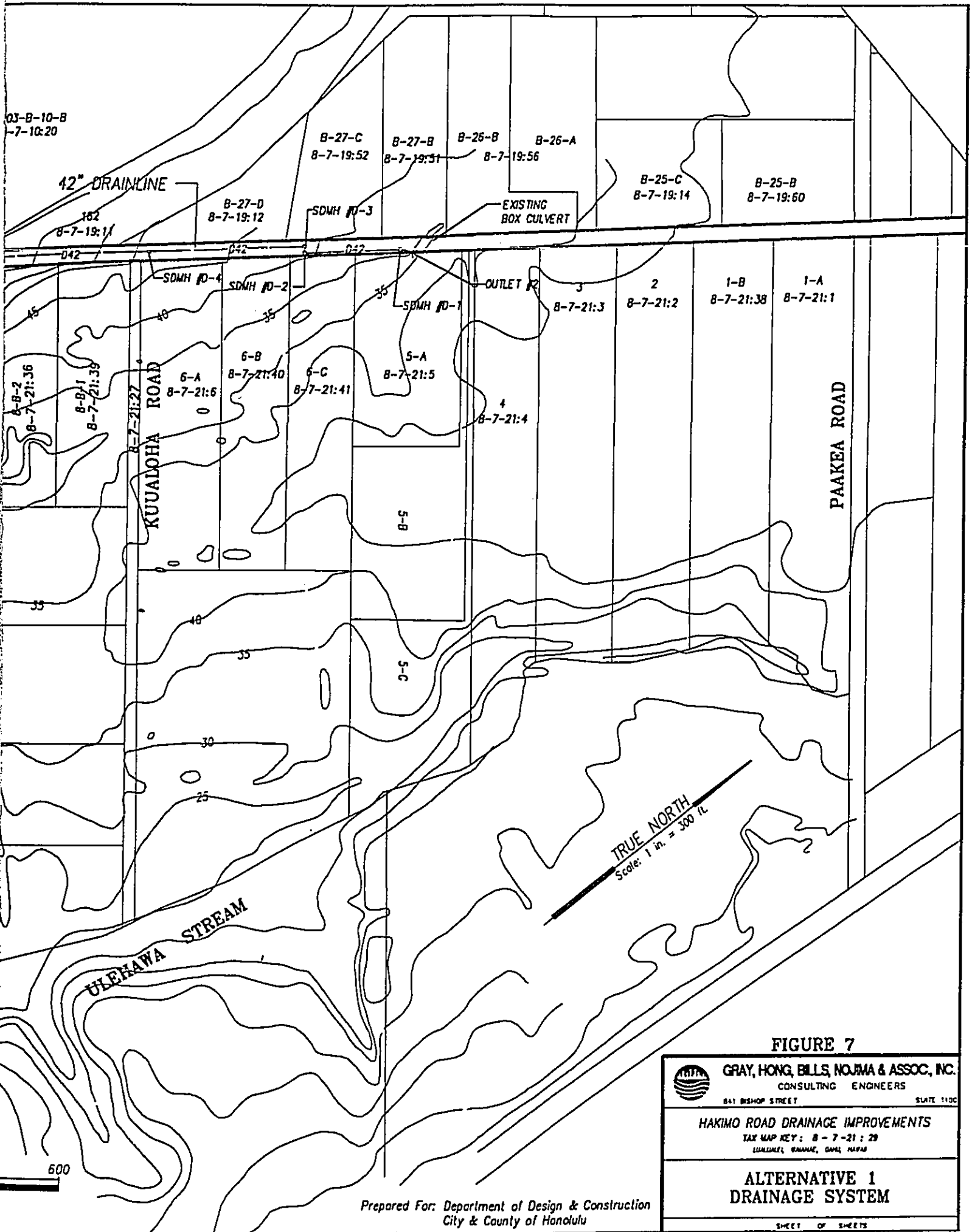


FIGURE 7


GRAY, HONG, BILLS, NOJIMA & ASSOC., INC.
 CONSULTING ENGINEERS
 841 BISHOP STREET SUITE 110C

HAKIMO ROAD DRAINAGE IMPROVEMENTS
 TAX MAP KEY: B-7-21:29
 LUALABE, WAHAAE, OAHU, HAWAII

**ALTERNATIVE 1
 DRAINAGE SYSTEM**

SHEET OF SHEETS

Prepared For: Department of Design & Construction
 City & County of Honolulu

APPENDIX A

COPIES OF DRAFT EA RESPONSES

Jan 29 02 10:19a

Dept. of Health (DEQC)

(808) 586-4186

P. 1

BENJAMIN J. CAVETARO
Deputy Director



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

328 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813
TELEPHONE: (808) 586-4185
FACSIMILE: (808) 586-4188

GENEVIEVE SALMONSON
DIRECTOR

JEREMY HARRIS
SAVOR

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4184 • FAX: (808) 523-4587
WEB SITE ADDRESS: www.dd.honolulu.gov



PAI M. IIDA, P.E.
DIRECTOR
ENC. O. CRISPINA
DEPUTY DIRECTOR
GEORGE E. TAMURA, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-00042

January 29, 2002

Rae Loui, Director
Department of Design & Construction
650 South King Street
Honolulu, Hawaii 96813

Attention: Dennis Toyama

Dear Ms. Loui:

Subject: Draft Environmental Assessment (EA) for Hakimo Rd. Drainage Improvements

We have the following comments to offer:

Two-sided pages: In order to reduce bulk and save on paper, we recommend printing on both sides of the pages in the final document.

Vehicle use on Hakimo Road: Section IV.A of the draft EA (*General Description*) states that there is heavy use by passenger vehicles and semi-tractor trailer trucks. What are these trucks used for?

Emergency road: In the final EA indicate the location of the project site relative to the proposed emergency road. How will the emergency road affect use on Hakimo or Ulehawa Roads?

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

Sincerely,

GENEVIEVE SALMONSON
Director

c: David Bills

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Attention: Ms. Nancy Heinrich

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of January 29, 2000, regarding the subject project. The following are responses to your comments:

1. We will make every effort to use double-sided printing for the Final EA.
2. Truck-trailers are used primarily by farmers. For example, a pig farm is located at the end of Ulehawa Road. The farm is serviced four times per week by truck-trailers with 45-foot rigs rated at 75,000 lbs. GVW. The Final EA will indicate that the contractor must allow for traffic considerations during the construction period.
3. As you are probably aware, the Waianae Coast Emergency Access Route (WCEAR) will be intended for severe emergency use only. Several alternative routes will be available during construction of the Hakimo Road drainage improvements.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

RAE LOUI, P.E.
Director

DT:FK:pio
cc: Gray, Hong, Bills, Nojima & Associates, Inc.

PHONE (808) 594-1848



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPOLAHANE BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

FAX (808) 594-1865

JEREMY HARRIS
MAYOR

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 513-4584 • FAX: (808) 523-4587
WEB SITE ADDRESS: www.dd.honolulu.gov



RAE M. LOULI, P.E.
DIRECTOR
LUCY G. CROSSLAND
COUNTY DIRECTOR
GEORGE T. TAMASHIRO, P.E.
ASSISTANT DIRECTOR

11RD02468

February 4, 2002

Mr. Dennis Toyama
Department of Design and Construction
City and County of Honolulu
650 South King Street - 11th Floor
Honolulu, HI 96813

SUBJECT: DEA - HAKIMO ROAD DRAINAGE IMPROVEMENTS -
TMK: 8-7-21:20

Dear Mr. Toyama:

Thank you for the opportunity to review the above reference DEA that will involve the construction of an underground drainage system to alleviate the flooding occurring in the vicinity of the intersection between Hakimo Road and Layaway Road.

The Office of Hawaiian Affairs (OHA) has no comments at this time. If you have any questions, please contact Jerry B. Norris at 594-1847 or email him at jerryn@oha.org.

Sincerely,

Colin C. Kippen, Jr.
Deputy Administrator
Hawaiian Rights Division

cc: OHA Board of Trustees
Clyde W. Namu'o, OHA Administrator
Ms. Genevieve Salmonson, OEQC
David B. Bills, Gray, Hong, Bills, Nojima & Associates, Inc.

March 27, 2002

Mr. Colin C. Kippen, Jr.
Deputy Administrator
Hawaiian Rights Division
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Attention: Jerry B. Norris

Dear Mr. Kippen:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021:29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 4, 2002, regarding the subject project. We acknowledge that OHA has no comments at this time.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

RAE M. LOULI, P.E.
Director

DT:FK-pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4182 • FAX: 527-5725 • INTERNET: www.cc.honolulu.hi.us



JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

EDWARD T. "SHIPP" DIAZ
DEPUTY DIRECTOR

February 15, 2002

MEMORANDUM

TO: RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: WILLIAM D. BALFOUR, JR., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
HAKIMO ROAD DRAINAGE IMPROVEMENTS, TMK: 8-7-21: 29

Thank you for the opportunity to review and comment on the Draft Environmental Assessment relating to the Hakimo Road Drainage Improvements.

The Department of Parks and Recreation has no comments to make on the environmental assessment.

This project will not impact the facilities or services of this department. We request that you delete us as a consulted party to the environmental impact statement process.

Should you have any questions, please contact Mr. John Reid, Planner, at 547-7396.

W.D. Balfour, Jr.

WILLIAM D. BALFOUR, JR.
Director

WDB:cu (7761)

cc: Office of Environmental Quality Control
✓ Gray, Hong, Bills, Nojima & Associates Inc.
Mr. Don Griffin, Department of Design and Construction

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4364 • FAX: (808) 523-4587
WEB SITE ADDRESS: www.cc.honolulu.hi.us



JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
ERIC B. CRAPANZANA
DEPUTY DIRECTOR
GEORGE T. TAMASHIRO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

MEMORANDUM

TO: MR. WILLIAM D. BALFOUR, JR., DIRECTOR
DEPARTMENT OF PARKS AND RECREATION

ATTN: MR. JOHN REID

FROM: *John Reid*
RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-021: 29
WAIANA'E, OAHU, HAWAII

Thank you for your correspondence of February 15, 2002, regarding the subject project. We acknowledge that your department has no comments at this time.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

CDED-A 02-0050

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR, HONOLULU, HAWAII 96813
Phone: (808) 523-4414 Fax: (808) 523-4713



JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR
LORETTA K.C. CHEE
DEPUTY DIRECTOR

FEB 14 2002

2002/EOLOG-252
(dnk)

Mr. David B. Bills
Gray, Hong, Bills, Nojima & Associates, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Mr. Bills:

Hakimo Road Drainage Improvements
Draft Environmental Assessment

We have reviewed the subject Draft Environmental Assessment and have additional comments to our previous letter of December 11, 2001, as follows:

Reevaluate the drainage basin shown on Figures 3 and 4. The boundary of the drainage basin was not taken perpendicular to the contour lines, therefore, the area may actually be larger than 14.1 acres.

It should be mentioned in the report that Ulehawa Road is privately owned, therefore, a drainage easement for the proposed drain line will be required.

In Section VII.A. Alternate 1, reference to Figures 8 and 9 were made, however, the figures were not included in the report.

Should you have any questions, please contact Ms. Dawn Kimura of our Site Development Division at (808) 523-4968.

Sincerely yours,

RANDALL K. FUJIKI, AIA
Director of Planning and Permitting

RKF:ky
(139334)

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 FAX: (808) 523-4587
WEB SITE ADDRESS: www.cc.honolulu.hi.us



JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
LUCY G. CRONIN, AIA
DEPUTY DIRECTOR
GEORGE T. TAMASHIRO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CEDED-A 02-0056

MEMORANDUM

TO: MR. RANDALL K. FUJIKI, AIA, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

ATTN: MS. DAWN KIMURA

FROM:
RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-021-29
WAJANAEO, OAHU, HAWAII

Thank you for your correspondence of February 14, 2002, regarding the subject project. The following are responses to your comments:

1. The area and outline of the drainage basin was taken from the hydrologic map in the "Engineering Report for Hakimo Road Drainage Improvements" (accepted by the Department of Design and Construction, July 1998). The hydrologic map will be reviewed and any revisions will be incorporated in the design phase as needed.
2. The requirement for a drainage easement in favor of the City and County of Honolulu will be indicated in the Final EA.
3. Section VII of the Final EA will be revised removing references to Figures 8 and 9.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
<http://www.honolulu.gov>
www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR



LEE D. DONOHUE
CHIEF
MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

OUR REFERENCE CS-KP

February 19, 2002

TO: RAE M. LOUIJ, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: DENNIS TOYAMA, CIVIL ENGINEER V

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-21: 29, WAIANAЕ, OAHU, HAWAII

Thank you for the opportunity to review and comment on the subject project.
This project should have negligible impact on the facilities and services of this
department.

If there are any questions, please call Ms. Carol Sodevani of the Support Services
Bureau at 529-3658.

LEE D. DONOHUE
Chief of Police

By *Carl Godsey*
KARL GODSEY
Acting Assistant Chief of Police
Support Services Bureau

cc: OEQC
✓ Gray, Hong, Bills,
Nojima and Associates, Inc.

Setting and Protecting with Aloha

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-1884 • FAX: (808) 523-4567
WEB SITE ADDRESS: www.co.honolulu.hi.us



JEREMY HARRIS
MAYOR

PALE M. LOUIJ, P.E.
DIRECTOR
LUCY B. CHENYAN, AA
DEPUTY DIRECTOR
OSBERT T. TAMASANO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-0051

MEMORANDUM

TO: MR. LEE D. DONAHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

ATTN: MS. CAROL SODETANI
SUPPORT SERVICES BUREAU

FROM: *Carl Godsey*
RAE M. LOUIJ, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-021: 29
WAIANAЕ, OAHU, HAWAII

Thank you for your correspondence of February 19, 2002, regarding the subject project. We
acknowledge that the proposed project should have negligible impact on the facilities and
services of the Police Department.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for
your participation in the environmental review process.

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLACE, 711 KAPOLAHU BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4129 • FAX: (808) 523-4730 • INTERNET: www.cc.honolulu.hi



JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR
GEORGE T. TAMAKAHO, P.E.
DEPUTY DIRECTOR

February 27, 2002

TPD02-00108
(TPD1/02-00303)

MEMORANDUM

TO: RAE M. LOUI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTN: DENNIS TOYAMA

FROM: CHERYL D. SOON, DIRECTOR

SUBJECT: HAKIMO ROAD DRAINAGE IMPROVEMENTS

In response to the January 18, 2002 letter from Gray, Hong, Bills, Nojima & Associates, Inc., the draft environmental assessment for the subject project was reviewed. Our previous comments, submitted via letter dated December 4, 2001, have been satisfactorily addressed.

The only additional comment that we have regarding the project is to include appropriate resurfacing of the entire lane width of all drainage-trenching areas as a mitigation measure. This would provide a better-finished product for the motoring public.

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation Planning Division at Local 6976.

cc: Ms. Genevieve Salmonson
Office of Environmental Quality Control

Mr. David Bills
Gray, Hong, Bills, Nojima & Associates, Inc.

CHERYL D. SOON

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
850 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4884 • FAX: (808) 523-4887
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
ERIC G. CHENKIN, AA
DEPUTY DIRECTOR
GEORGE T. TAMAKAHO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-0035

MEMORANDUM

TO: MS. CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

ATTN: MS. FAITH MIYAMOTO

FROM:
RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-021: 29
WAIANA E, OAHU, HAWAII

Thank you for your correspondence of February 27, 2002, regarding the subject project. We acknowledge that your pre-assessment comments have been adequately addressed. In addition, the Final EA will indicate resurfacing of the entire lane width within City rights-of-ways.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

DT:FK:pto

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

87-1666 Ulehuwa Rd
Waianae, HI 96792
February 11, 2002

Department of Design and Construction
City and County of Honolulu

Contact: Mr. Dennis Toyama (523-4756)

Subject: Hakimo Road Drainage Improvement
TMK B-7-21-29
Waianae, Oahu

Gentlemen:

Thank you for the invitation to comment about construction on Ulehuwa Road. We have a pig farm at the end of this road, and would like to apprise you of a need which may affect how you provide for traffic during construction.

Our farm is regularly serviced by truck-trailers, the biggest of which is a 45-ft rig rated at 75,000 lb GVW. Frequency of traverse is about four times/week.

We can give notice of transit one day in advance

Very truly yours,

Mr. Y. Leong, Manager
Ulehuwa Farm, Inc.

1. Office of Environ. Control
2. Gray, Hong, et al.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4584 • FAX: (808) 523-4587
WEB SITE ADDRESS: www.dd.honolulu.hi.gov



JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
DUNCAN G. CRAPANZ, AIA
DEPUTY DIRECTOR
GEORGE S. FALGOUTOS, P.E.
ASSISTANT DIRECTOR

April 1, 2002

CDED-A 02-0047

Mr. K. Y. Leong, Manager
Ulehuwa Farm, Inc.
82-1666 Ulehuwa Road
Waianae, Hawaii 96792

Dear Mr. Leong:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 11, 2002, informing the City of your farming operations at the end of Ulehuwa Road. We acknowledge the potential traffic inconvenience to the large truck trailers that service your farm. The contractor will be required to coordinate with residents and property owners in the vicinity of the intersection and along Ulehuwa Road. As much as possible, the City will attempt to minimize inconvenience and disruption during the construction of the drainage improvements.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

Raymond Loui
RAE M. LOUI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.



Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

February 4, 2002

Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813
Attention: Dennis Toyama

Dear Mr. Toyama:

Subject: Draft Environmental Assessment for
Hakimo Road Drainage Improvements

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Hakimo Road Drainage Improvements project.

Verizon Hawaii has aerial facilities within the proposed project area. However, after further review, there will not be any conflict with these facilities.

If you have any questions or require assistance in the future on this project, please call Les Loo at 840-5861.

Sincerely,

Les Loo
Les Loo
Section Manager
Outside Plant Engineering

c: Office of Environmental Quality Control
D. Bills - Gray, Hong, Bills, Nojima & Associates, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-1534 • FAX: (808) 523-1567
WEB SITE ADDRESS: www.cd.honolulu.hi.us



JEREMY HARRIS
MAYOR

RAEM LOU, P.E.
DIRECTOR
ERIC G. CRUMP, JIA
DEPUTY DIRECTOR
GEORGE T. TAMASAWO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-0048

Ms. Jill Z. Lee, Section Manager
Outside Plant Engineering
Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, Hawaii 96841

Attention: Les Loo
Dear Ms. Lee:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 4, 2002, regarding the subject project. We acknowledge that the proposed action will not conflict with any of Verizon Hawaii's aerial facilities.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

Raem Lou
RAEM M. LOU, P.E.
Director

DT:FK:pto

cc: Gray, Hong, Bills, Nojima & Associates, Inc.



WAIANAE COAST NEIGHBORHOOD BOARD NO. 24

116 NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 408 • HONOLULU, HAWAII 96813

February 6, 2002

Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813
Contact: Dennis Toyama

Dear Ms. Toyama:

SUBJECT: Draft Environmental Assessment Hakimo Road Drainage Improvements TMK: 8-7-21: 29 Waianae, Oahu, Hawaii

The Wai anae Coast Neighborhood Board No. 24, at its regularly scheduled meeting of February 5, 2002, voted unanimously to support the proposed plan as presented in the Draft Environmental Assessment (Draft EA).

We look forward to the approval of the Draft EA, with implementation occurring quickly, to alleviate the problem of flooding along Hakimo and Ulehawa Roads, thereby providing safer roads for the regular commuters along this area.

If you have any questions or to provide further updates on the status of this project during future board meetings, please do not hesitate to contact me at 696-0131 or at rezentesc@aol.com.

Sincerely,

Cynthia K. L. Rezentes

Cynthia K. L. Rezentes, Chair
Wai anae Coast Neighborhood Board No. 24

cc: Neighborhood Commission Office
Councilmember John DeSoto
Senator Colleen Hanabusa
Representative Emily Auwae
Representative Michael Kahikina
Office of Environmental Quality Control
Gray, Hong, Bills, Nojima & Associates, Inc.

W0-02-602024



**DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 525-4364 • FAX: (808) 523-4587
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JEREMY HARRIS
MAYOR



RAE M. LOUI, P.E.
DIRECTOR
LUC B. CHING, AIA
DEPUTY DIRECTOR
GEORGET. TAMASHIRO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-0049

Ms. Cynthia Rezentes, Chairperson
Waianae Coast Neighborhood Board No. 24
c/o Neighborhood Commission
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Rezentes:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your interest and participation in the environmental review process for the Hakimo Road Drainage Improvements. Please be assured that your Neighborhood Board will be updated should there be any modifications to the project.

Should there be any questions, please contact Dennis Toyama at 523-4756.

Very truly yours,

RAE M. LOUI

RAE M. LOUI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.



STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 LAND DIVISION
 P.O. BOX 531
 HONOLULU, HAWAII 96813

February 21, 2002

LD-NAV
 Ref.: HAKIMOROAD.RCH2
 LOG-991

Gray, Hong, Bills, Nojima & Associates, Inc.
 David B. Bills
 841 Bishop Street, Suite 1100
 Honolulu, Hawaii 96813

Dear Mr. Bills:

SUBJECT: Review: Draft Environmental Assessment (DEA)
 Applicant: City and County of Honolulu
 Consultant: Gray, Hong, Bills, Nojima & Associates
 Project: Hakimo Road Drainage Improvements
 Authority: Dept. of Design and Construction C&CoH
 Location: Waiānae, Island of Oahu, Hawaii
 THK: 1st/ 8-7-021: 029

This is a follow-up to our letter (Ref.: HAKIMOROAD.RCH) to you dated February 20, 2002 pertaining to the subject matter.

Attached herewith is a recently copy of the Division of Aquatic Resources comment.

The Department of Land and Natural Resources has no other comment to offer at this time.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 587-0438.

Very truly yours,

HARRY M. YADA
 Acting Administrator

C: Oahu District Land Office
 C&CoH Department of Design and Construction

STATE OF HAWAII
 Department of Land and Natural Resources
 DIVISION OF AQUATIC RESOURCES

MEMORANDUM

TO: William S. Devick, Administrator *WSD*
 Glenn R. Higashi, Aquatic Biologist
FROM: Comments on Draft Environmental Assessment (DEA)
SUBJECT: Harry M. Yada
 Requested By: Land Division
 Date of Request: 1/28/02 Date Received: 1/30/02

Summary of Project

Title: Draft Environmental Assessment for Hakimo Road Drainage Improvements
Project By: Gray, Hong, Nojima & Associates
 City and County of Honolulu
Location: Waiānae, Oahu, Hawaii - TMK: 1st/ 8-7-021: 029

Brief Description:

The City and County of Honolulu is proposing to construct an underground drainage system to alleviate flooding occurring in the vicinity of the intersection between Hakimo Road and Uiehawa Road. The proposed system will include approximately 2,500 linear feet of 24-, 30-, and 36-inch diameter reinforced concrete pipe, 3 drainage inlets, 14 manholes, and an outlet structure on the bank of Uiehawa Stream.

Comments:

The proposed project is not expected to have any significant impact on the aquatic resource values in this area. The Uiehawa Stream is intermittent and therefore usually dry except during periods of substantial rainfall. However, the following mitigative measures stated in the DEA should be implemented during the construction of the underground drainage system to minimize the potential impacts on the aquatic environment:

- 1) storage of construction related materials and equipment in areas away from the stream bed;
- 2) divert flows in the ditch from the working area by building temporary berms of sand bags;
- 3) install silt curtains downstream of working area should there be any flow into Uiehawa Stream;
- 4) schedule site work during dry weather periods; and
- 5) prevent construction materials, petroleum products, debris and landscaping products from falling, blowing or leaching into the ditch or stream bed.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 525-3100 • FAX: (808) 523-4587
WEB SITE ADDRESS: www.ddc.org.hawaii



JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
DUNCAN G. CRISPIN, AIA
DEPUTY DIRECTOR
GEORGE T. TALLENTS, P.E.
ASSISTANT DIRECTOR

April 8, 2002

CDED-A 02-0097

Mr. Harry M. Yada
Acting Administrator
Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Mr. Glenn R. Higashi
Division of Aquatic Resources

Dear Mr. Yada:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 21, 2002, regarding the subject project. We acknowledge that the proposed project is not expected to have any significant impact on the aquatic resource values in the area. As requested, the mitigative measures stated in the DEA will be required of the contractor during the construction of the project.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

A handwritten signature in black ink, appearing to read "RAE M. LOUI".

RAE M. LOUI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

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



February 7, 2002

JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. ETZEL, Vice-Chairman
JANILLY AUM
HERBERT LEE KAOPULA, SR.
BARBARA KIM STANTON
BRUH K. JINJAL, E-Comm
ROSS S. SASABURA, E-Comm
CLIFFORD S. JAMILE
Manager and Chief Engineer

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
630 SOUTH KIKI STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 532-4314 • FAX: (808) 532-4367
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
EMC G. CHENPA, AA
DEPUTY DIRECTOR
GEORGE S. TAMAKUHO, P.E.
ASSISTANT DIRECTOR

TO: RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTN: DENNIS TOYAMA

FROM: *[Signature]* for CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER

SUBJECT: YOUR TRANSMITTAL OF JANUARY 18, 2002 REGARDING
THE DRAFT ENVIRONMENTAL ASSESSMENT FOR
THE HAKIMO ROAD DRAINAGE IMPROVEMENTS PROJECT,
TMK: 8-7-21: 29, WAIANAЕ, OAHU, HAWAII

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (EA) for the proposed Hakimo Road drainage improvements project.

Our pre-assessment comments of November 30, 2001 have been addressed and are included in Appendix A of the Draft EA.

If you have any questions, please contact Scot Muraoka at 527-5221.

cc: Office of Environmental Quality Control
[Signature] David Bills, Gray, Hong, Bills, Nojima & Associates, Inc.

March 22, 2002

CDED-A 02-0040

MEMORANDUM

TO: MR. CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

ATTN: MR. SCOT MURAOKA

FROM: *[Signature]*
RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-021: 29
WAIANAЕ, OAHU, HAWAII

Thank you for your correspondence of February 7, 2002, regarding the subject project. We acknowledge that your pre-assessment comments have been addressed in Appendix A of the DEA.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

DT:FK;pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

RAE M. LOUI, P.E.
DIRECTOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 11
HONOLULU, HAWAII 96813
FEB - 1 2002

CLEMENTE S. COLOMA-AGUIAR
DIRECTOR
BRUCE S. ANDERSON
MANAGING DIRECTOR
MEREDITH J. LONG
CLAYTON W. DELA CRUZ
BRUCE C. HONDA
HERBERT W. HONDA

LINNETT T. NISHIOKA
DEPUTY DIRECTOR

JEREMY HARRIS
MAYOR

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4487
WEB SITE / ADDRESS: www.cd.honolulu.hi.us



March 27, 2002

CDED-A 02-0046

Ms. Rae M. Loui, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Dear Ms. Loui:

Hakimo Road Drainage Improvements
Waianae, Oahu, Hawaii, TMK: 8-7-21:29

We have received a copy of the Draft Environmental Assessment for construction of an underground drainline system by the City and County of Honolulu in the vicinity of the intersection of Hakimo and Uleehawa Roads. The drainage system would discharge into Uleehawa Channel in a section of channel that has insufficient streamflow to support instream uses. In accordance with our November 20, 2001 letter to Gray, Hong, Bills, Nojima & Associates, Inc., a stream channel alteration permit will not be required for the proposed construction.

Thank you for consulting us on this matter. Should you have any questions, please contact David Higa of the Commission staff at 587-0249.

Sincerely,

LINNET T. NISHIOKA
Deputy Director

SKS:sd

c. Office of Environmental Quality Control
✓ Mr. David Bills, Gray, Hong, Bills, Nojima & Associates

Ms. Linnet T. Nishioka, Deputy Director
Commission on Water Resources Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Mr. David Higa

Dear Ms. Nishioka:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 1, 2002, regarding the subject project. We acknowledge that a stream channel alteration permit will not be required due to insufficient flow in the channel of Uleehawa Stream at the proposed drainage discharge location.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

RAE M. LOUI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO:
ATTENTION OF

January 29, 2002

Regulatory Branch

Mr. Dennis Toyama
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

COPY

Dear Mr. Toyama:

This responds to your letter dated January 18, 2002 requesting comments on the Draft Environmental Assessment (EA) for Hakimo Road Drainage Improvements. Based on the information provided, it appears that a Department of the Army permit will not be required for the project; however, Figure 6A does not clearly show where the drain outlet is located on the bank relative to the stream bottom. The final EA should contain a figure showing the relationship between the drain outlet and the stream bottom.

If you have any questions concerning this determination please contact Mr. William Lennan of my staff at 438-6986 or FAX 438-4060 and mention File Number 200200065.

Sincerely

Signed

George P. Young, P.E.
Chief, Regulatory Branch

Copy Furnished:
Office of Environmental Quality Control, State Office Tower, 235
S. Beretania St., Suite 702, Honolulu, HI 96813
Mr. David Bills, Gray, Hong, Bills, Nojima & Associates, Inc.,
841 Bishop St., Suite 1100, Honolulu, HI 96813

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
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PHONE: (808) 522-4564 • FAX: (808) 522-4887
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
ERIC D. ENYAMA, AIA
DEPUTY DIRECTOR
GEORGE T. TAKAHASHI, P.E.
ASSISTANT DIRECTOR

March 27, 2002

COED-A 02-0041

Mr. George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Attention: Mr. William Lennan

Dear Mr. Young:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021:29
Waianae, Oahu, Hawaii

Thank you for your correspondence of January 29, 2002 (File Number 200200065) regarding the subject project. As indicated in your correspondence, a Department of the Army permit will not be required for the proposed project. Per your suggestion, Figure 6A will be revised to indicate the drain outlet location relative to the stream bottom.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

RAE M. LOUI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

BENJAMIN J. CASTRINO
COMMISSIONER OF HEALTH



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

BRUCE S. ANDERSON, PH.D., MPH
DIRECTOR OF HEALTH

In reply, please refer to
F.A. 02-02/G/epo

March 6, 2002

Mr. David B. Bills
Gray, Hong, Bills, Nojima, & Associates, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Mr. Bills:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements, Waianae, Hawaii
Tax Map Key: (1) 8-7-21: 29

Thank you for the opportunity to review and comment on the subject proposal. The DEA was routed to the various branches of the Environmental Health Administration. We have the following comments.

Clean Water Branch

1. The applicant should contact the Army Corps of Engineers to identify whether a federal permit (including a Department of Army permit) is required for this project. A Section 401 Water Quality Certification is required for "Any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters..." pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act").
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following discharges to waters of the State:
 - a. Discharge of storm water runoff associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(x);
 - b. Discharge of storm water runoff associated with construction activities that involve the disturbance of five (5) acres or greater, including clearing, grading, and excavation;

Mr. David B. Bills
March 6, 2002
Page 2

- c. Discharge of treated effluent from leaking underground storage tank remedial activities;
- d. Discharge of once through cooling water less than one million gallons per day;
- e. Discharge of hydro-testing water;
- f. Discharge of construction dewatering effluent;
- g. Discharge of treated effluent from petroleum bulk stations and terminals; and
- h. Discharge of treated effluent from well drilling activities.

Any person requesting to be covered by a NPDES general permit for any of the above activities should file a Notice of Intent with the Department of Health, Clean Water Branch (CWB) at least thirty (30) days prior to commencement of any discharges to State waters;

3. If construction activities involve the disturbance of one acre or greater, including clearing, grading, and excavation, and will take place or extend after March 10, 2003, an NPDES general permit coverage is required for discharges of storm water runoff into State waters; and
4. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which waste water is discharged from the project into State waters.

If you have any questions, please contact the Clean Water Branch at (808) 586-4309.

Clean Air Branch (CAB)

There is a significant potential for fugitive dust emissions during the excavation, removal of debris, and construction activities. It is recommended that a dust control management plan be developed which identifies and addresses activities that have a significant potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of construction is warranted.

Construction activities must comply with provisions of Hawaii Administrative Rules, Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33, Fugitive Dust.

Fugitive Dust Control:

The contractor should provide adequate measures to control dust from the road areas and during the various phases of construction. These measures include, but are not limited to:

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 522-4564 • FAX: (808) 522-4587
WEB SITE ADDRESS: www.cd.honolulu.hi.us



JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
ERIC B. CRISPIN, III
DEPUTY DIRECTOR
GEORGE T. TAKAHASHI, P.E.
ASSISTANT DIRECTOR

April 1, 2002

CDED-A 02-0053

Mr. Gary Gill, Deputy Director
Environmental Health Administration
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Gill:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of March 6, 2002, regarding the subject project. The following are responses to your comments:

Clean Water Branch

1. The City has been informed in writing that a Department of the Army permit is not necessary for the proposed project (copy of correspondence will be included in the Final EA). Thus, it is our understanding that a Section 401 Water Quality Certification will not be required.
2. Construction of the proposed project is not expected to fail under the requirements for National Pollutant Discharge Elimination System (NPDES) general permit under Items a-h.
3. Construction of the proposed improvements is expected to be completed by March 10, 2003.
4. After construction, the proposed drainage system will not involve any wastewater discharge into State waters.

Mr. Gary Gill
Page 2
April 1, 2002

Clean Air Branch

1. Construction activities will comply with provisions of Chapter 60.1 of Title 11, Hawaii Administrative Rules, on Air Pollution Control.
2. The construction plans will indicate applicable mitigative measures for dust control from listed items a through f.

Noise, Radiation, and Indoor Air Quality Branch

Construction activities will comply with provisions of Chapter 46 of Title 11, Hawaii Administrative Rules, on Community Noise Control.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

RAE M. LOUI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

Mr. David B. Bills
March 6, 2002
Page 3

- a. Planning the different phases of construction, focusing on minimizing the amount of dust generating materials and activities, centralizing on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;
- b. Providing an adequate water source at the site prior to start up of construction activities;
- c. Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d. Controlling of dust from shoulders and access roads;
- e. Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f. Controlling of dust from debris being hauled away from project site.


If you have any questions regarding these issues on fugitive dust, please contact the Clean Air Branch at 586-4200.

Noise, Radiation & Indoor Air Quality (NRIAQ) Branch

All activities associated with this project must comply with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control".

If you have any questions, please contact the Noise, Radiation and Indoor Air Quality Branch at (808) 586-4700.

Sincerely,


GARY GILL
Deputy Director
Environmental Health Administration

c: CWB
CAB
NRIAQ

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

3375 KAWALE STREET, SUITE 1425 • HONOLULU, HAWAII 96819-1169
TELEPHONE: 1-808-933-7751 • FAX: 1-808-933-7750 • INTERNET: www.cc.honolulu.gov



JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF
JOHN OLAKA
DEPUTY FIRE CHIEF

February 7, 2002

TO: RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: DENNIS TOYAMA

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TAX MAP KEY: 8-7-021: 029
WAIANAЕ, OAHU, HAWAII

We received a letter from Mr. David B. Bills of Gray, Hong, Bills, Nojima & Associates, Inc., dated January 18, 2002, regarding the above-mentioned project.

The Honolulu Fire Department requests that you comply with the following:

1. Maintain fire apparatus access throughout the construction site for the duration of the project.
2. Notify the Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

ATTILIO K. LEONARDI
Fire Chief

AKL/SK:jl

cc: Office of Environmental Quality Control
David B. Bills, Gray, Hong, Bills, Nojima & Associates, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4584 • FAX: (808) 523-4587
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JEREMY HARRIS
MAYOR

RAE M. LOUI, P.E.
DIRECTOR
DUNCAN G. CRISPIN, MA
DEPUTY DIRECTOR
GEORGE T. TAMASHIRO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-00043

MEMORANDUM

TO: MR. ATTILIO K. LEONARDI, FIRE CHIEF
HONOLULU FIRE DEPARTMENT

ATTN: MR. KENNETH SILVA

FROM: RAE M. LOUI, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
HAKIMO ROAD DRAINAGE IMPROVEMENTS
TMK: 8-7-021: 29
WAIANAЕ, OAHU, HAWAII

Thank you for your correspondence of February 7, 2002, regarding the subject project. The Final EA will address your concerns:

1. The contractor will be required to maintain fire apparatus access throughout the construction period.
2. The Fire Communication Center at 523-4411 will be notified in the event of any interruption of the existing fire hydrant system.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

DT:FK:pto

cc: Gray, Hong, Bills, Nojima & Associates, Inc.



February 16, 2002

Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Attention: Mr. Dennis Toyama

Subject: Hakimo Road Drainage Improvements

Thank you for the opportunity to comment on your January 2002 Draft EA for the Hakimo Road Drainage Improvements. We have reviewed the subject document and have the following comments:

1. Please note that HECO already has aerial facilities within the proposed project area. Attached are HECO's notes that apply to construction work in areas containing HECO facilities.
2. A review of the final design plans will be required to determine any impacts to HECO's facilities. For example, if the grade of the roadway is significantly disturbed, the poles may need to be replaced or relocated to meet our clearance requirements. Any subsequent work requiring temporary or permanent relocation of HECO's facilities will need to be coordinated.

Our point of contact for this project, and the originator of these comments, is Francis Hirakami (543-7536) principal engineer. I suggest your staff and consultants deal directly with Francis to coordinate HECO's continuing input on this project.

Sincerely,

Kirk Tomita
Senior Environmental Scientist
Hawaiian Electric Company

Attachment

cc: OEQC

David Bilis (Gray, Hong, Nojima & Associates)



WINNER OF THE EDISON AWARD
FOR DISTINGUISHED INDUSTRY LEADERSHIP

HECO NOTES

1. LOCATION OF HECO FACILITIES

THE LOCATION OF HECO'S OVERHEAD AND UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATIONS OF THE FACILITIES AND SHALL EXERCISE PROPER CARE IN EXCAVATING AND WORKING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES AND UTILITY CROSSINGS ARE SHOWN, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS AND CROSSINGS TO VERIFY THE DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO HECO'S FACILITIES WHETHER SHOWN OR NOT SHOWN ON THE PLANS.

2. COMPLIANCE WITH HAWAII OCCUPATIONAL SAFETY AND HEALTH LAWS

THE CONTRACTOR SHALL COMPLY WITH THE STATE OF HAWAII'S OCCUPATIONAL SAFETY AND HEALTH LAWS AND REGULATIONS, INCLUDING WITHOUT LIMITATION, THOSE RELATED TO WORKING ON OR NEAR EXPOSED OR ENERGIZED ELECTRICAL LINES AND EQUIPMENT.

3. EXCAVATION PERMIT

THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM HECO'S TECHNICAL DIVISION (543-5654) LOCATED AT 820 WARD AVENUE, 4TH FLOOR, TWO WEEKS PRIOR TO STARTING CONSTRUCTION. PLEASE REFER TO OUR REQUEST NUMBER AT THAT TIME.

4. CAUTION!!! ELECTRICAL HAZARD!!!

EXISTING HECO OVERHEAD AND UNDERGROUND LINES ARE ENERGIZED AND WILL REMAIN ENERGIZED DURING CONSTRUCTION. ONLY HECO PERSONNEL ARE TO HANDLE THESE ENERGIZED LINES AND ERECT TEMPORARY GUARDS TO PROTECT THESE LINES FROM DAMAGE. THE CONTRACTOR SHALL WORK CAUTIOUSLY AT ALL TIMES TO AVOID ACCIDENTS AND DAMAGE TO EXISTING HECO FACILITIES, WHICH CAN RESULT IN ELECTROCUTION.

5. OVERHEAD LINES

STATE LAW REQUIRES THAT A WORKER AND THE LONGEST OBJECT HE OR SHE MAY CONTACT CANNOT COME CLOSER THAN A MINIMUM RADIAL CLEARANCE OF 10 FEET WHEN WORKING CLOSE TO OR UNDER ANY OVERHEAD LINES RATED 50KV AND BELOW. FOR EACH ADDITIONAL 1KV ABOVE 50KV, AN ADDITIONAL 0.4 INCH SHALL BE ADDED TO THE 10-FOOT CLEARANCE REQUIREMENT. THE PRECEDING INFORMATION ON LINE CLEARANCE REQUIREMENTS IS PROVIDED AS A CONVENIENCE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE INFORMED OF AND COMPLY WITH ANY REVISIONS OR AMENDMENTS TO THE LAW.

SHOULD THE CONTRACTOR ANTICIPATE THAT HIS WORK WILL RESULT IN THE NEED TO ENCROACH WITHIN THE MINIMUM REQUIRED CLEARANCE AT ANY TIME, THE CONTRACTOR SHALL NOTIFY HECO AT LEAST FOUR (4) WEEKS PRIOR TO THE PLANNED ENCROACHMENT SO THAT, IF FEASIBLE, THE NECESSARY PROTECTIONS (E.G. RELOCATE, DE-ENERGIZE, OR BLANKET HECO LINES) CAN BE PUT IN PLACE. HECO'S COST OF SAFEGUARDING ITS LINES WILL BE CHARGED TO THE CONTRACTOR.

CONTACT HECO'S CUSTOMER INSTALLATIONS DEPARTMENT AT 543-7846 FOR ASSISTANCE IN IDENTIFYING AND SAFEGUARDING OVERHEAD POWER LINES.

REFER TO SECTION X OF HECO'S ELECTRIC SERVICE INSTALLATION MANUAL FOR ADDITIONAL GUIDELINES WHEN WORKING AROUND HECO'S FACILITIES. A COPY MAY BE OBTAINED FROM HECO'S CUSTOMER INSTALLATIONS DEPARTMENT.

6. POLE BRACING

A MINIMUM CLEARANCE OF 10 FEET MUST BE MAINTAINED WHEN EXCAVATING AROUND UTILITY POLES AND/OR THEIR ANCHOR SYSTEM TO PREVENT WEAKENING OR POLE SUPPORT FAILURE. SHOULD WORK REQUIRE EXCAVATING WITHIN 10 FEET OF A POLE AND/OR ITS ANCHOR SYSTEM, THE CONTRACTOR SHALL PROTECT, SUPPORT, SECURE, AND TAKE ALL OTHER PRECAUTIONS TO PREVENT DAMAGE TO OR LEANING OF THESE POLES. THE CONTRACTOR IS RESPONSIBLE FOR ALL ASSOCIATED COSTS TO BRACE, REPAIR, OR STRAIGHTEN POLES. ALL MEANS OF STRUCTURAL SUPPORT FOR THE POLE PROPOSED BY THE CONTRACTOR SHALL FIRST BE REVIEWED BY HECO BEFORE IMPLEMENTATION. FOR POLE BRACING INSTRUCTIONS, THE CONTRACTOR SHALL CALL THE HECO CONSTRUCTION AND MAINTENANCE DEPT., CUSTOMER & SYSTEM SUPERINTENDENT AT 543-4223 A MINIMUM OF TWO (2) WEEKS IN ADVANCE.

7. UNDERGROUND LINES

THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND LINES. HECO'S EXISTING ELECTRICAL CABLES ARE ENERGIZED AND WILL REMAIN ENERGIZED DURING CONSTRUCTION. ONLY HECO PERSONNEL ARE TO BREAK INTO EXISTING HECO FACILITIES, HANDLE THESE CABLES, AND ERECT TEMPORARY GUARDS TO PROTECT THESE CABLES FROM DAMAGE. THE COST OF HECO'S ASSISTANCE IN PROVIDING PROPER SUPPORT AND PROTECTION OF ITS UNDERGROUND LINES WILL BE CHARGED TO THE CONTRACTOR. SPECIAL PRECAUTIONS ARE REQUIRED WHEN EXCAVATING NEAR HECO'S 138KV UNDERGROUND LINES (SEE HECO INSTRUCTIONS TO CONSULTANTS/CONTRACTORS ON "EXCAVATION NEAR HECO'S UNDERGROUND 138KV LINES" FOR DETAILED REQUIREMENTS).

FOR VERIFICATION OF UNDERGROUND LINES, THE CONTRACTOR SHALL CALL HECO'S UNDERGROUND DIVISION AT 543-7049 A MINIMUM OF 72 HOURS IN ADVANCE.

FOR ASSISTANCE IN PROVIDING PROPER SUPPORT AND PROTECTION OF THESE LINES, THE CONTRACTOR SHALL CALL HECO'S CONSTRUCTION & MAINTENANCE DEPT., CUSTOMER & SYSTEM SUPERINTENDENT, AT 543-4223, A MINIMUM OF TWO (2) WEEKS IN ADVANCE.

8. UNDERGROUND FUEL PIPELINES

THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF HECO'S UNDERGROUND FUEL OIL PIPELINES. SPECIAL PRECAUTIONS ARE REQUIRED WHEN EXCAVATING NEAR HECO'S UNDERGROUND FUEL OIL PIPELINES (SEE HECO INSTRUCTIONS TO CONSULTANTS/CONTRACTORS ON "EXCAVATION NEAR HECO'S UNDERGROUND FUEL PIPELINES" FOR DETAILED REQUIREMENTS).

9. EXCAVATIONS

WHEN TRENCH EXCAVATION IS ADJACENT TO OR BENEATH HECO'S EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR:

- a) SHEETING AND BRACING THE EXCAVATION AND STABILIZING THE EXISTING GROUND TO RENDER IT SAFE AND SECURE AND TO PREVENT POSSIBLE SLIDES, CAVE-INS, AND SETTLEMENTS.
- b) PROPERLY SUPPORTING EXISTING STRUCTURES OR FACILITIES WITH BEAMS, STRUTS, OR UNDER-PINNINGS TO FULLY PROTECT IT FROM DAMAGE
- c) BACKFILLING WITH PROPER BACKFILL MATERIAL INCLUDING SPECIAL THERMAL BACKFILL WHERE EXISTING (REFER TO ENGINEERING DEPARTMENT FOR THERMAL BACKFILL SPECIFICATIONS).

10. RELOCATION OF HECO FACILITIES

ANY WORK REQUIRED TO RELOCATE OR MODIFY HECO FACILITIES SHALL BE DONE BY HECO, OR BY THE CONTRACTOR UNDER HECO'S SUPERVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION, AND SHALL PROVIDE NECESSARY SUPPORT FOR HECO'S WORK, WHICH MAY INCLUDE, BUT NOT BE LIMITED TO, EXCAVATION AND BACKFILL, PERMITS AND TRAFFIC CONTROL, BARRICADING, AND RESTORATION OF PAVEMENT, SIDEWALKS, AND OTHER FACILITIES.

ALL COSTS ASSOCIATED WITH ANY RELOCATION OR MODIFICATION (EITHER TEMPORARY OR PERMANENT) FOR THE CONVENIENCE OF THE CONTRACTOR, OR TO ENABLE THE CONTRACTOR TO PERFORM HIS WORK IN A SAFE AND EXPEDITIOUS MANNER IN FULFILLING HIS CONTRACT OBLIGATIONS SHALL BE BORNE BY THE CONTRACTOR.

11. CONFLICTS

ANY REDESIGN OR RELOCATION OF HECO'S FACILITIES NOT SHOWN ON THE PLANS MAY BE CAUSE FOR LENGTHY DELAYS. THE CONTRACTOR ACKNOWLEDGES THAT HECO IS NOT RESPONSIBLE FOR ANY DELAY OR DAMAGE THAT MAY ARISE AS A RESULT OF ANY CONFLICTS DISCOVERED OR IDENTIFIED WITH RESPECT TO THE LOCATION OR CONSTRUCTION OF HECO'S ELECTRICAL FACILITIES IN THE FIELD, REGARDLESS OF WHETHER THE CONTRACTOR HAS MET THE REQUESTED MINIMUM ADVANCE NOTICES. IN ORDER TO MINIMIZE ANY DELAY OR IMPACT ARISING FROM SUCH CONFLICTS, HECO SHOULD BE NOTIFIED IMMEDIATELY UPON DISCOVERY OR IDENTIFICATION OF SUCH CONFLICT.

12. DAMAGE TO HECO FACILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL HECO SURFACE AND SUBSURFACE UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO HECO'S FACILITIES AS A RESULT OF HIS OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY REPORT SUCH DAMAGES TO HECO'S TROUBLE DISPATCHER AT 548-7961. REPAIR WORK SHALL BE DONE BY HECO OR BY THE CONTRACTOR UNDER HECO'S SUPERVISION. COSTS FOR DAMAGES TO HECO'S FACILITIES SHALL BE BORNE BY THE CONTRACTOR.

IN CASE OF DAMAGE OR SUSPECTED DAMAGE TO HECO'S FUEL PIPELINE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY HECO'S HONOLULU POWER PLANT SHIFT SUPERVISOR AT 533-2102 (A 24-HOUR NUMBER) SO HECO PERSONNEL CAN SECURE THE DAMAGED SECTION AND REPORT ANY OIL SPILLS TO THE PROPER AUTHORITIES. ALL COSTS ASSOCIATED WITH THE DAMAGE, REPAIR, AND OIL SPILL CLEANUP SHALL BE BORNE BY THE CONTRACTOR.

13. HECO STAND-BY PERSONNEL

THE CONTRACTOR MAY REQUEST HECO TO PROVIDE AN INSPECTOR TO STAND-BY DURING CONSTRUCTION NEAR HECO'S FACILITIES. THE COST OF SUCH INSPECTION WILL BE CHARGED TO THE CONTRACTOR.

THE CONTRACTOR SHALL CALL THE HECO CONSTRUCTION AND MAINTENANCE DEPT., CUSTOMER & SYSTEM SUPERINTENDENT AT 543-4223 A MINIMUM OF 5 WORKING DAYS IN ADVANCE TO ARRANGE FOR HECO STAND-BY PERSONNEL.

15. CLEARANCES

THE FOLLOWING CLEARANCES SHALL BE MAINTAINED BETWEEN HECO'S DUCTLINE AND ALL ADJACENT STRUCTURES (CHARTED AND UNCHARTED) IN THE TRENCH:

STRUCTURE TYPE	MINIMUM CLEARANCE (INCHES)
WATER LINES, PARALLEL	36

WATER LINES, CROSSING	12 (A)
SEWER LINES, PARALLEL	36 (B)
SEWER LINES, CROSSING	24 (C)
DRAIN LINES, PARALLEL	12
DRAIN LINES, CROSSING	6 (D)
ELECTRICAL AND GAS LINES, PARALLEL	12
ELECTRICAL AND GAS LINES, CROSSING	12
TELEPHONE LINES, PARALLEL	6 (D)
TELEPHONE LINES, CROSSING	6 (D)
CHEVRON OIL LINES, PARALLEL	36
CHEVRON OIL LINES, CROSSING	48 BELOW OIL LINE (E)

- A. THE MINIMUM VERTICAL CLEARANCES TO WATER LINES CROSSING ELECTRICAL DUCTLINES CAN BE REDUCED TO 6 INCHES IF THE ELECTRICAL DUCTLINE STRUCTURE IS SMALLER THAN 16 INCHES, IS CONCRETE ENCASED, AND IS BELOW THE WATER LINE.
- B. A MINIMUM HORIZONTAL CLEARANCE OF 36 INCHES IS REQUIRED BETWEEN NEW HANDHOLES AND EXISTING SEWER LATERALS.
- C. THE MINIMUM VERTICAL CLEARANCES TO SEWER PIPES CROSSING ELECTRICAL DUCTLINES CAN BE REDUCED TO 12 INCHES IF THE SEWER PIPE IS JACKETED IN CONCRETE.
- D. THE MINIMUM CLEARANCES SHALL BE INCREASED TO 12 INCHES IF THE ELECTRICAL DUCTLINE IS DIRECT BURIED.
- E. THE MINIMUM VERTICAL CLEARANCES TO OIL LINES CROSSING ELECTRICAL DUCTLINES CAN BE REDUCED TO 24 INCHES BELOW OIL LINES IF THE CROSSINGS ARE ENCASED IN 6 INCHES OF CONCRETE.
- F. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER & HECO OF ANY HEAT SOURCES (POWER CABLE DUCT BANK, STEAMLINE, ETC.) ENCOUNTERED THAT ARE NOT PROPERLY IDENTIFIED ON THE DRAWING.

14. INDEMNITY

THE CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS HECO FROM AND AGAINST ALL LOSSES, DAMAGES, CLAIMS, AND ACTIONS, INCLUDING BUT NOT LIMITED TO REASONABLE ATTORNEY'S FEES AND COSTS BASED UPON OR ARISING OUT OF DAMAGE TO PROPERTY OR INJURIES TO PERSONS, OR OTHER TORTIOUS ACTS CAUSED OR CONTRIBUTED TO BY CONTRACTOR OR ANYONE ACTING UNDER ITS DIRECTION OR CONTROL OR ON ITS BEHALF; PROVIDED CONTRACTOR'S INDEMNITY SHALL NOT BE APPLICABLE TO ANY LIABILITY BASED UPON THE SOLE NEGLIGENCE OF HECO.

ADDITIONAL NOTES WHEN WORK INVOLVES CONSTR. OF HECO FACILITIES

15. SCHEDULE

CONTRACTOR SHALL FURNISH HIS CONSTRUCTION SCHEDULE WORKING DAYS PRIOR TO STARTING WORK ON HECO FACILITIES. CONTRACTOR SHALL GIVE HECO, IN WRITING, WORKING DAYS NOTICE TO PROCEED WITH HECO'S PORTION OF WORK.

16. AUTHORITY

ALL CONSTRUCTION, RESTORATION WORK, AND INSPECTION SHALL BE SUBJECT TO WHICHEVER GOVERNMENTAL AGENCY HAS AUTHORITY OVER THE WORK.

17. SPECIFICATIONS

CONSTRUCTION OF HECO'S UNDERGROUND FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISIONS OF HECO SPECIFICATIONS CS7001, CS7003, CS7202, CS9301, AND CS9401 AND APPLICABLE HECO STANDARDS.

18. CONSTRUCTION

CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES TO PROPERLY PERFORM AND FULLY COMPLETE ALL WORK SHOWN ON THE CONTRACT, DRAWINGS, AND SPECIFICATIONS. ALL MATERIALS SHALL BE NEW AND MANUFACTURED IN THE UNITED STATES OF AMERICA. ALL MANHOLE, HANDHOLE, AND DUCTLINE INSTALLATIONS SHALL BE INSPECTED AND APPROVED BY HECO PRIOR TO EXCAVATION AND PRIOR TO PLACING CONCRETE. CONTRACTOR SHALL NOTIFY HECO'S INSPECTION DIVISION AT 543-4356 AT LEAST 48 HOURS PRIOR TO PLACING CONCRETE.

19. STAKEOUT

THE CONTRACTOR SHALL STAKEOUT ALL PROPOSED HECO FACILITIES WITHIN THE PROJECT AREA SO AS TO NOT CONFLICT WITH ANY UTILITY (EXISTING OR PROPOSED) AND ANY PROPOSED CONSTRUCTION OR IMPROVEMENT WORK FOR VERIFICATION BY HECO BEFORE PROCEEDING WITH HECO WORK.

20. DUCTLINES

ALL DUCTLINE INSTALLATIONS SHALL BE PVC SCHEDULE 40 ENCASED IN CONCRETE, UNLESS OTHERWISE NOTED. ALL COMPLETED DUCTLINES SHALL BE MANDREL TESTED BY THE CONTRACTOR IN THE PRESENCE OF HECO'S INSPECTOR USING HECO'S STANDARD PRACTICE. THE CONTRACTOR SHALL INSTALL A 1/8" POLYOLEFIN PULL LINE IN ALL COMPLETED DUCTLINES AFTER MANDREL TESTING IS COMPLETE.

21. JOINT POLE REMOVAL

THE LAST JOINT POLE OCCUPANT OFF THE POLES SHALL REMOVE THE POLES.

22. AS-BUILT PLANS

THE CONTRACTOR SHALL PROVIDE HECO WITH TWO SETS OF AS-BUILT REPRODUCIBLE TRACINGS SHOWING THE OFFSETS, STATIONING, AND VERTICAL ELEVATION OF THE DUCT LINE(S) CONSTRUCTED.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 532-1344 • FAX: (808) 532-4587
WEB SITE ADDRESS: www.dcd.honolulu.gov



JEREMY HARRIS
CLERK

RAE M. LOUI, P.E.
DIRECTOR
ERIC S. CHEN, AIA
DEPUTY DIRECTOR
GEORGE T. TALLSHAW, P.E.
ASSISTANT DIRECTOR

March 25, 2002

CEDED-A 02-0054

Mr. Kirk Tomita
Senior Environmental Scientist
Hawaiian Electric Company
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Attention: Mr. Francis Hirakami

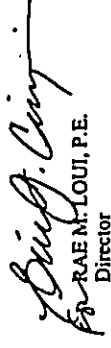
Dear Mr. Tomita:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 16, 2002, regarding the subject project. We acknowledge that the proposed project area is served by aerial facilities. The DEA will indicate that construction plans be reviewed for approval by Hawaiian Electric Company.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,


RAE M. LOUI, P.E.
Director

DT:FK:pto

cc: Gray, Hong, Bills, Nojima & Associates, Inc.

BENJAMIN J. CRIVELLO
GOVERNOR OF HAWAII



CHIEF CLERK AGAFAK CHAMPAGNON
BOARD OF LAND AND NATURAL RESOURCES

BOYDUS
ENC 1 HAWAII
ENC2 HAWAII

ADVANCE DEVELOPMENT PROGRAM
AQUATIC RESOURCES CONSERVATION AND RESTORATION PROGRAM
COMMERCIAL APPLS
CONSERVATION AND RESTORATION PROGRAM
CONTRACTS MANAGEMENT AND SUPPORT
HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
901 KAMOLELA BLVD., ROOM 604
KAPOLU, HAWAII 96707

February 4, 2002

Dennis Toyama
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Dear Mr. Toyama:

SUBJECT: Chapter 6E-8 Historic Preservation Review - Draft Environmental Assessment Hakimo Road Drainage Improvements, Wai'anae
Luahalei, Wai'anae, O'ahu
TMK: (1) 8-7-021:029

LOG NO: 29098 ✓
DOC NO: 0201EJ30

The DEA correctly incorporates our earlier comments that we believe that no significant historic sites will be affected by this project since the drainage improvements will be installed within in existing roadways.

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk

c: ✓ OEQC
David Bills, Gray, Hong, Bills, Nojima & Associates, Inc. 841 Bishop Street,
Suite 1100, Honolulu, HI 96813

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567
WEB SITE ADDRESS: www.ddc.honolulu.hi.us



JEREMY HARRIS
MAYOR

RAEM LOUI, P.E.
DIRECTOR
ENC 0: CRISPIN, AIA
COUNTY DIRECTOR
GEORGE T. TAMAKORO, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-0045

Mr. Don Hibbard, Administrator
Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Wai'anae, Oahu, Hawaii

Thank you for your correspondence of February 4, 2002 (LOG NO. 29098/DOC. NO. 0201EJ30) regarding the subject project. We acknowledge that your pre-assessment comments have been incorporated in the DEA and that no significant historic sites will be affected by the proposed action.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

RAEM M. LOUI, P.E.
Director

DT:FK:pto

cc: Gray, Hong, Bills, Nojima & Associates, Inc.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION
P.O. BOX 521
HONOLULU, HAWAII 96813
February 20, 2002

SOILS RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES IMPROVEMENT
COUNTRYSIDE DEVELOPMENT
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
LAND USE PLANNING AND
SOILS RESOURCES MANAGEMENT

LD-NAV
Ref.: HAKIMOROAD.RCH
LOG-426/563/891

Gray, Hong, Bills, Mojima & Associates, Inc.
David B. Bills
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Mr. Bills:

SUBJECT: Review: Draft Environmental Assessment (DEA)
Applicant: City and County of Honolulu
Consultant: Gray, Hong, Mojima & Associates
Project: Hakimo Road Drainage Improvements
Authority: Dept. of Design and Construction C&COH
Location: Waianae, Island of Oahu, Hawaii
TMK: 1'1/ 8-7-021: 029

Thank you for the opportunity to review and comment on the subject matter. A copy of the document (DEA) covering the proposed project was transmitted to the following Department of Land and Natural Resources Divisions for their review and comment:

- Division of Aquatic Resources
- Division of Forestry & Wildlife
- Commission on Water Resource Management
- Land Division Engineering Branch
- Land Division Oahu District Land Office
- Land Division Planning and Technical Services

Attached herewith is a copy of the Land Division Engineering Branch comment.

The Department of Land and Natural Resources has no other comment to offer at this time.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 587-0438.

Very truly yours,

HARRY M. YADA
Acting Administrator

C: Oahu District Land Office
C&COH Dept. of Design and Construction

DLNR-LAND DIVISION
ENGINEERING BRANCH

LD-NAV/LOG426
Ref.: HAKIMOROAD.COM

COMMENTS

We confirm that the project site, according to FEMA Community Panel Number 15003 C 0195 E (November 20, 2000), is located in Zone D. This is an area in which flood hazards are undetermined.

However, if further studies determined that the project site is within the flood zone, the proposed improvements must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Mr. Sterling Yong, of the Department of Land and Natural Resources at 587-0248.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11TH FLOOR
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JEREMY HARRIS
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ALE M. LOOI, P.E.
DIRECTOR
IHC B. GOSWAMI, JIA
DEPUTY DIRECTOR
GEORGE T. YAMASAKI, P.E.
ASSISTANT DIRECTOR

March 27, 2002

CDED-A 02-0052

Mr. Harry M. Yada, Acting Administrator
Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Mr. Nicholas A. Vaccaro
Engineering Branch

Dear Mr. Yada:

Subject: Draft Environmental Assessment (DEA)
Hakimo Road Drainage Improvements
TMK: 8-7-021: 29
Waianae, Oahu, Hawaii

Thank you for your correspondence of February 20, 2002, regarding the subject project. We acknowledge that you have confirmed the project site location in Zone D of FEMA Community Panel Number 15003 C 0195 E (November 20, 2000). As you have indicated, should the proposed improvements be relocated within a flood zone, compliance with rules and regulations of the National Flood Insurance Program and all applicable County Flood Ordinances will be required.

Should there be any questions, please contact Dennis Toyama at 523-4756. Again, thank you for your participation in the environmental review process.

Very truly yours,

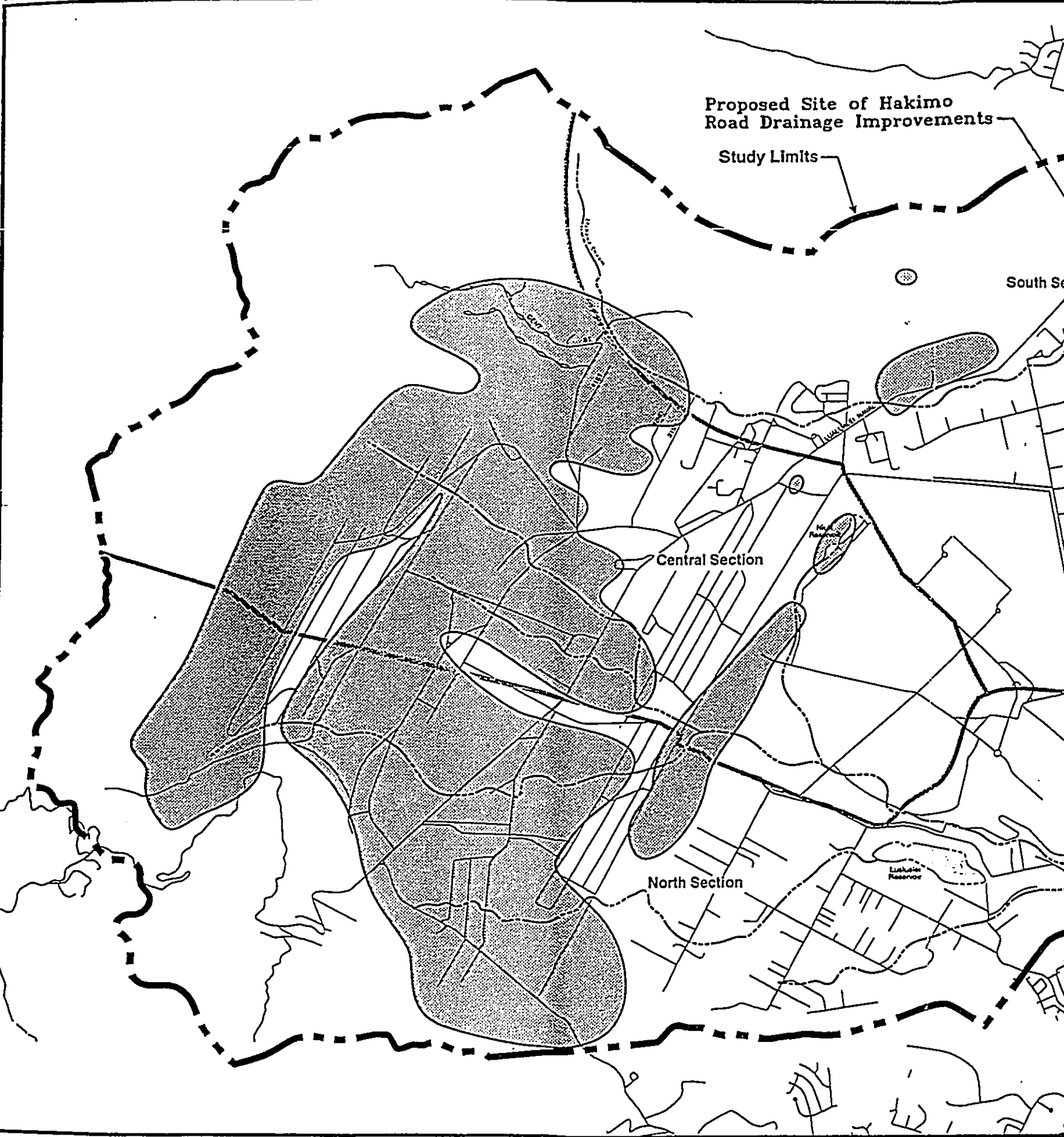
Rae M. Looi
For RAE M. LOOI, P.E.
Director

DT:FK:pio

cc: Gray, Hong, Bills, Nojima & Associates, Inc.





APPENDIX B

ARCHAEOLOGICALLY SENSITIVE AREAS





LEGEND

-  Archaeologically Sensitive Areas
-  Section Boundary
-  Study Limits
-  Stream Centerline



NORTH

0 3000 6000



SCALE IN FEET

Figure 2.3
LUALALEI WATERSHED - SOUTH SECTION
ARCHAEOLOGICALLY SENSITIVE AREAS

Source: Luaualei Flood Study - Environmental Survey
 Prepared by Belt Collins Hawaii
 September 2001

APPENDIX C

CULTURAL IMPACT STUDY

**A CULTURAL IMPACT STUDY FOR
THE HAKIMO ROAD DRAINAGE IMPROVEMENTS PROJECT
IN LUALUALEI AHUPUA'A, WAI'ANAE DISTRICT
ISLAND OF O'AHU
DECEMBER 2001**

**Prepared for: Mr. David Bills
Gray, Hong, Bills, Nojima & Associates, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813**

**Prepared by: Archaeological Consultants of the Pacific, Inc.
Michelle Elmore, B.A.
Joseph Kennedy, M.A.
59-624 Pupukea Road
Haleiwa, Hawaii 96712**



*Inventory Reports * Data Recovery Reports * Research Design Documents * Monitoring * Due Diligence Work * Historical Studies * Cultural Studies * Burial Treatment Plans * Preservation Plans * Interpretive Reconstructions * Restorations * Qualified Expert Witness Testimony*

**59-624 Pupukea Road Haleiwa, Hawaii 96712 Phone: 638-7442/Fax: 638-0703
e-mail: archaeologypacific@hawaii.rr.com**

Abstract

A Cultural Impact Study has been conducted for a portion of Hakimo Road in Luaualei Ahupua'a on the Island of O'ahu. The subject property is scheduled for drainage improvements. The proposed improvements are located along existing roadways and right-of-ways of Ulehawa Road and Hakimo Road. The purpose of these investigations was to gather information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, HRS, and to promote responsible decision making.

The current study took the form of a historic background study and community consultations. The historic background research addresses traditional accounts and land use for Luaualei Ahupua'a. Community consultations addressed concerns of community members regarding the affect of the proposed construction on places of cultural or traditional importance.

As a result of the current study, recommendations regarding the impact the proposed drainage improvement on cultural practices and features associated with the project area have been made.

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A Cultural Impact Study for the Hakimo Road Drainage Improvements Project in Lualualei Ahupua'a, Wai'anae District, Island of O'ahu

Section 1: Introduction

At the request of Mr. David Bills of Gray, Hong, Bills, Nojima and Associates, Inc., Archaeological Consultants of the Pacific, Inc. (ACP) has conducted a Cultural Impact Study for a portion of Hakimo Road located in the *ahupua'a* of Lualualei, district of Wai'anae, on the island of O'ahu (see Figure 1). The subject property is currently owned by the City and County of Honolulu. The subject area is planned for drainage improvements.

The purpose of these investigations was to perform the tasks and meet the requirements specified by Hawaii Revised Statutes 343 as administered by the office of Environmental Quality Control and as a part of the Environmental Assessment process. These investigations were conducted in an effort to promote and preserve cultural beliefs practices, and resources of native Hawaiians and other ethnic groups.

Section 2: Environmental Setting

The subject property is located along Ulehawa Road and Hakimo Road in Lualualei Ahupua'a, Wai'anae District, Island of O'ahu. This area lies 1150 meters (m) from the coast at an elevation of 15-70 feet above mean sea level. The property is located at geographic grid coordinates 158° 09' 18"W by 21° 24' 16"N and UTM coordinates 4587553E by 2366975mN (see Figure 2). The proposed project corridor follows the entire length (600m) of Ulehawa Road then turns *makai* onto Hakimo Road for a distance of 100m (see Figure 3).

The topography of the subject property consists of gently sloping ground surface on the valley floor between Pu'u O Hulu Uka and Ulehawa Stream. This corridor is mostly surrounded by private residences. According to Foote et al. (1972), soils in this area consist of Lualualei clay (2-6% slopes with very dark grayish brown clay). Vegetation along the subject corridor consists of manicured lawns with various grasses, shrubs and trees. Rainfall on the subject property averages around 20 inches a year (Armstrong 1973).

Figure 1: Project Location on a Map of O'ahu

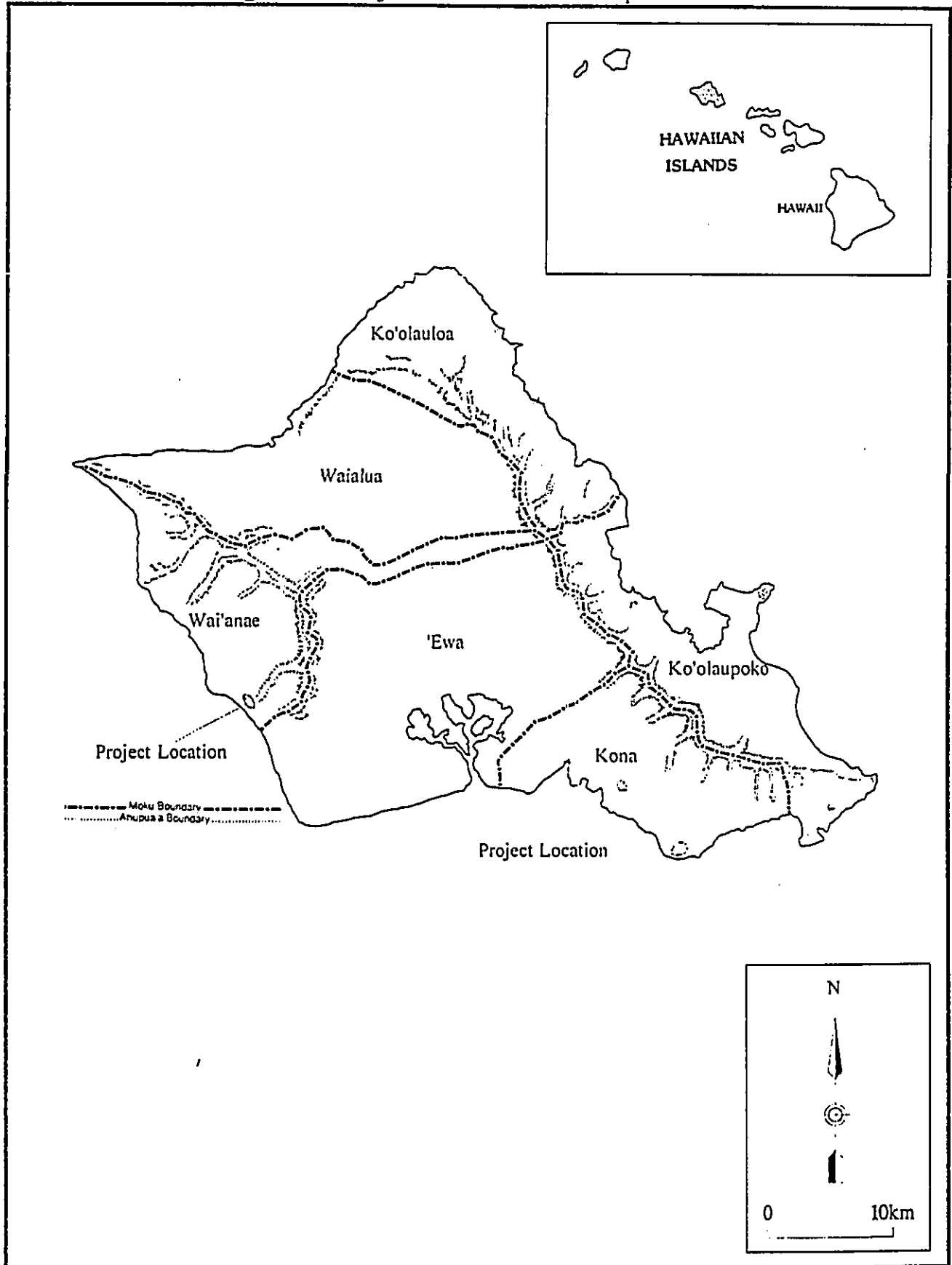
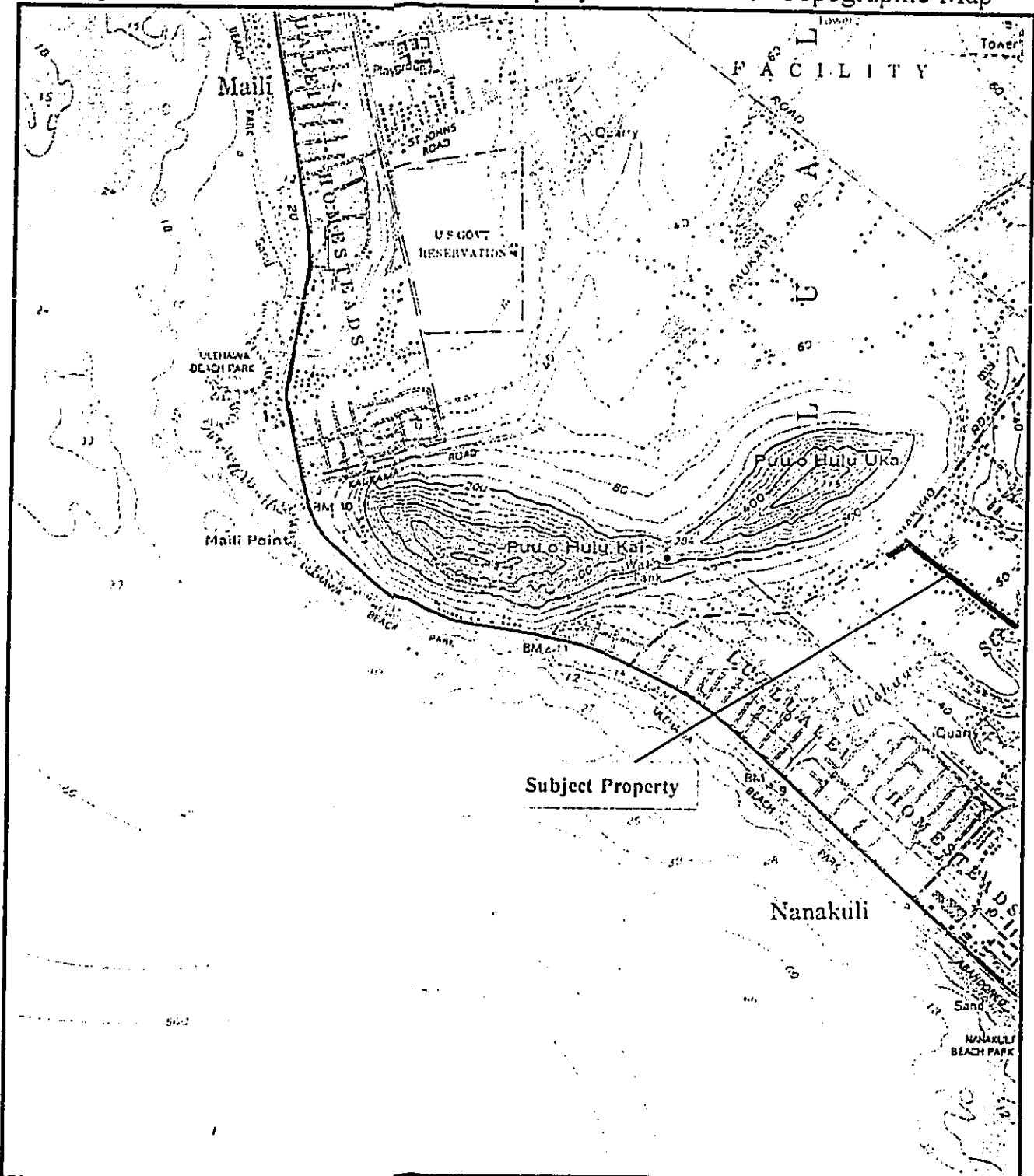


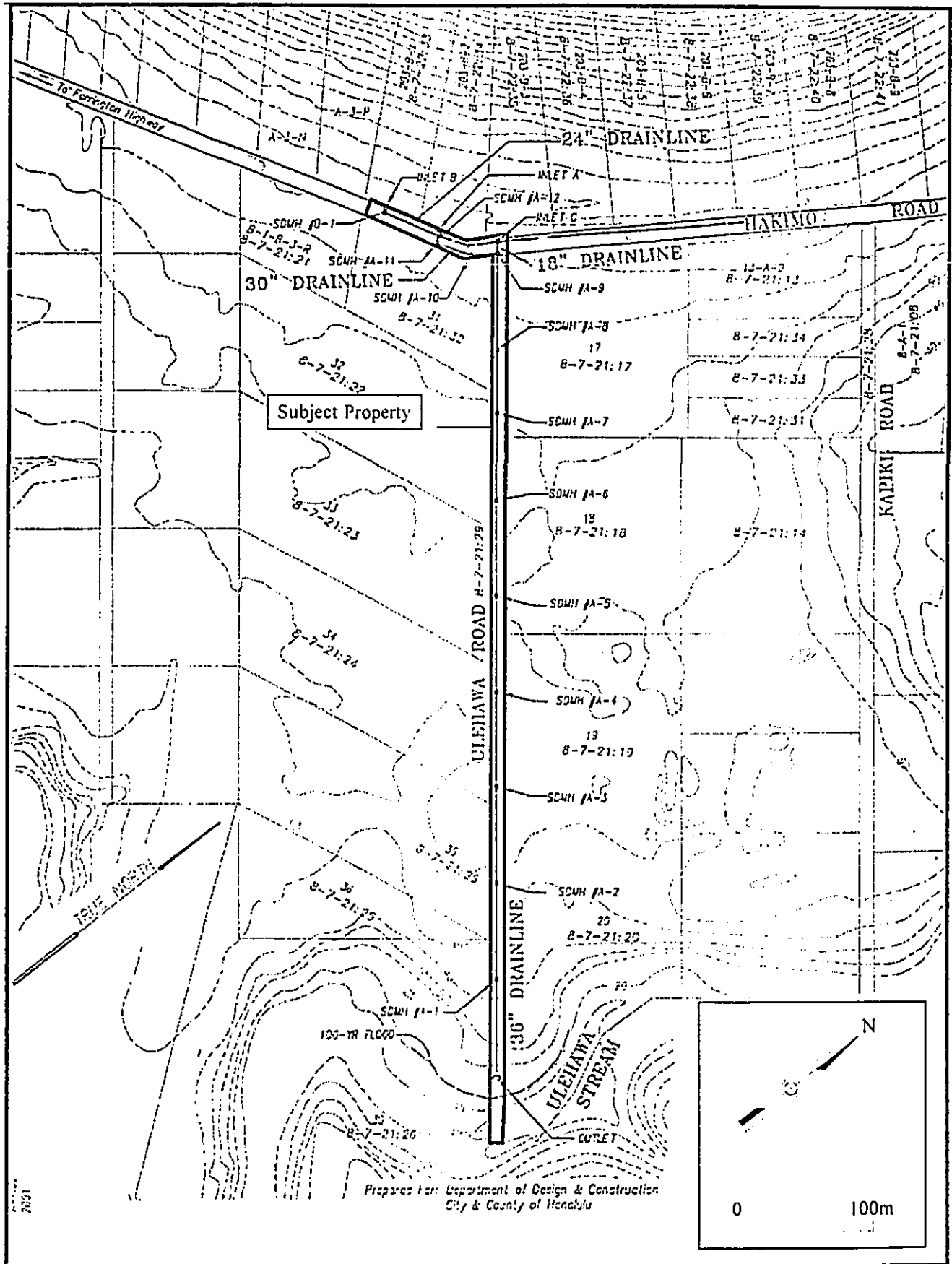
Figure 2: Location of the Subject Property on a U.S.G.S. Topographic Map



Hakimo Road Cultural Assessment

source: U.S.G.S. 7.5 Minute Series (Topographic) Map
Waianae Quadrangle 1983

Figure 3: Plan Map of Hakimo Road Drainage Improvements Project



Section 3: Methodology

The current study was conducted in November of 2001. The project was conducted under the direction of the Principal Investigator, Joseph Kennedy, M.A.. Community consultations were conducted by Joseph Kennedy, M.A.. Report preparation was completed by Joseph Kennedy, M.A., Michelle Elmore, B.A. and Debora Driscoll.

Though the project area in question is merely comprised of Ulehawa Road and a small segment of Hakimo Road, the geographical extent of inquiry for the current study includes the entire *ahupua'a* of Lualualei. Research of the historic background of Lualualei Ahupua'a was conducted including an examination of traditional accounts, land use from earliest occupation to present day, archaeological investigations and a summary of settlement patterns. This research was conducted by means of researching historical texts and documents, such as *Sites of O'ahu* (Sterling and Summers 1978), "Heiau and Heiau Sites Throughout the Hawaiian Islands" (Thrum 1907), *Archaeology of O'ahu* (McAllister 1933) and Place Names of Hawaii (Pukui, Elbert and Mookini 1974). An examination of Land Commission Awards was completed by researching the Board of Commissioners to Quiet Land Titles (1846-1855) Native and Foreign Registers and Testimonies Award Books at the Archives of Hawai'i in Honolulu. Research relating to previous archaeological investigations was conducted at the Department of Land and Natural Resources, State Historic Preservation Division (DLNR-SHPD) library in Kapolei.

Individuals and organizations with expertise concerning cultural resources, practices and beliefs in Lualualei as well as those knowledgeable of the area potentially affected by the proposed drainage improvements were identified and contacted, and willing individuals were consulted. Office of Hawaiian Affairs (OHA) was contacted, who suggested Mr. Kamaki Kanahele, with whom contact could not be made. DLNR-SHPD was also contacted, who suggested Ms. Alice Greenwood. Ms. Greenwood was contacted, who also suggested Mr. Solomon Naone. Both Ms. Greenwood and Mr. Naone were interviewed on November 27, 2001.

A list of interview questions was compiled for the cultural consultations. These included the informant's full name, address, birth date, birthplace, ethnicity, historical and geographical associations with the place in question, and finally, how the proposed drainage improvements would affect or physically alter any place of cultural/traditional importance, or access to any such place.

Cultural consultations were conducted in person, and the interviews were recorded by audio-cassette. This report provides complete transcriptions of all cultural consultations.

Limitations/constraints which might have affected the quality of the information obtained included difficulty in getting in contact with Mr. Kanahele.

Section 4: Historic Background of Lualualei Ahupua'a

The leeward *ahupua'a* of Lualualei is comprised of a steep sided valley with a broad, relatively level valley floor fronted by a sandy beach. Bounded by the slopes of Pahe'ehe'e Ridge to the north, the Wai'anae Range to the east and Pu'u Heleakala to the south, other prominent topographic features include Pu'u Ma'ili'ili and Pu'u O Hulu along the coast, and Kaua'opu'u, Pu'u Ka'ilio, Pu'u Hapapa, Pu'u Kanehoa, Pu'u Kaua and Palikea along the Wai'anae Range. Kolekole Pass and Pohakea Pass, the two *mauka* passes leading into Wai'anae, are both located in Lualualei Ahupua'a. The two main streams are Ma'ili'ili and Ulehawa.

Traditional Accounts

The district of Wai'anae has a prominent place in the Hawaiian oral tradition; its place names figure in central mythological accounts and in the stories of the ruling chiefs, suggesting perhaps a relatively early occupation of this land. Numerous traditional accounts are associated with Lualualei Ahupua'a.

Numerous meanings of the name Lualualei have been suggested. Lualua (relaxed, let down) and lei (beloved one, wreath) may imply either "flexible wreath" or "beloved one spared." The "beloved one spared" originated from an account told by John I'i of a man named Kalakua who was accused of stealing and wearing a king's loincloth (Sterling and Summers 1978). Punishment for this crime would have included death by fire to Kalakua and his entire family. Kalakua and his family were spared this punishment, and a child of the family born later was named Lualualei (beloved one spared).

Stories of the demigod Maui are found throughout Polynesia, with local variations from each of the Hawaiian Islands. On O'ahu, these stories are centered in Wai'anae. Maui and his two brothers, Maui-mua and Maui-ikiiki, are said to have been born in Wai'anae at Ulehawa. Hina, their moon-goddess mother, lived in a cave at Puu Heleakala where she made the famous fishhook with which Maui tried to bring all of the Hawaiian Islands together, the snare for catching the sun and her own tapa cloth (Beckwith 1982:232). Maui is said to have discovered the secret of making fire here, and it is also here that Maui went on a flying expedition to retrieve his wife who was stolen by the chief Peapea (Sterling and Summers 1978).

Kolekole Pass, a gap in the Wai'anae mountains where people could pass over from the Schofield Plateau into Lualualei, is said to have been a battleground where warriors of Wahiawa fought with warriors of Wai'anae. Kolekole (meaning "raw") is a reference to the wounds in their flesh (McGrath, Brewer and Krauss 1973:12).

A legend associated with Pu'u O Hulu, located immediately next to the current subject property, is recounted in Sterling and Summers (1978):

Puu o Hulu was said to be a chief who was in love with Ma'ilili, one of twin sisters, but he could never tell, whenever he saw them, which of the two was his beloved. A mo'o changed them all into mountains so he is still there watching and trying to distinguish his loved one. (Victoria Holt, Nov. 1954)

John I'i (1959) described and mapped ancient trails on O'ahu. There were three trails which led into Wai'anae: one along the leeward coast; another from Kukaniloko in Wahiawa through the Kolekole Pass; and another through the Pohakea Pass.

Land Use

A comprehensive review of this *ahupua'a* has been presented in Cordy's (1998) *Ka Moku O Wai'anae: He Mo'olelo O Ka Wa Kahiko*. The earliest use of the land was probably temporary campsites utilized in relation to fishing and resource gathering. Cordy discusses initial permanent habitation in Wai'anae:

In Wai'anae, one might expect the earliest permanent settlement to have been in Wai'anae valley at Pokai Bay in association with its flowing stream (Kaupuni) and at Kamaile with its spring (Keko'o) – as these were the two best watered coastal lands in the moku. Then perhaps Makaha and parts of Lualualei with at least upland flowing waters, and perhaps perennial streams, would have been settled, and then the rest of the district.

Evidence for use of the land for *lo'i* behind the coastal habitation areas in Wai'anae Kai Ahupua'a dates to as early as AD 1100s-1200s, whereas agricultural use "in Nanakuli, dry fields in the upper valley began to be built in the AD 1200s-1400s and permanent habitations in the 1300s-1400s and ... these sites seem likely to reflect later population spread from a somewhat earlier settlement along the shore" (Cordy 1998:8). Taro cultivation in Lualualei Ahupua'a would have likely begun around this same time. As the population on O'ahu grew during the 1400s-1700s, permanent habitations likely increased and cultivation of *lo'i* and dryland agriculture likely expanded.

In addition to the utilization of littoral resources, numerous fishponds provided a valuable resource. During the 1400s-1500s:

Coastal fishponds... were... probably constructed in these years under the sponsorship of the rule of high chiefs. A fishpond in Honouliuli along Pearl Harbor in 'Ewa, Loko Paweo II in Waikiki, Moli'i and Nu'upia fishponds in Kane'ohe Bay all have their initial constructions dated back to this period.³⁴ Some of the lineal marshlands behind the coastal dunes in the *moku* of Wai'anae also may have been in use as fishponds at this time—perhaps in 'Ohikilolo and Wai'anae. (Cordy 1998)

The account of Kalakua (discussed above in relation to the meaning of the name of Lualualei) mentions the presence of a fishpond on the plain in Lualualei (Sterling and Summers 1978).

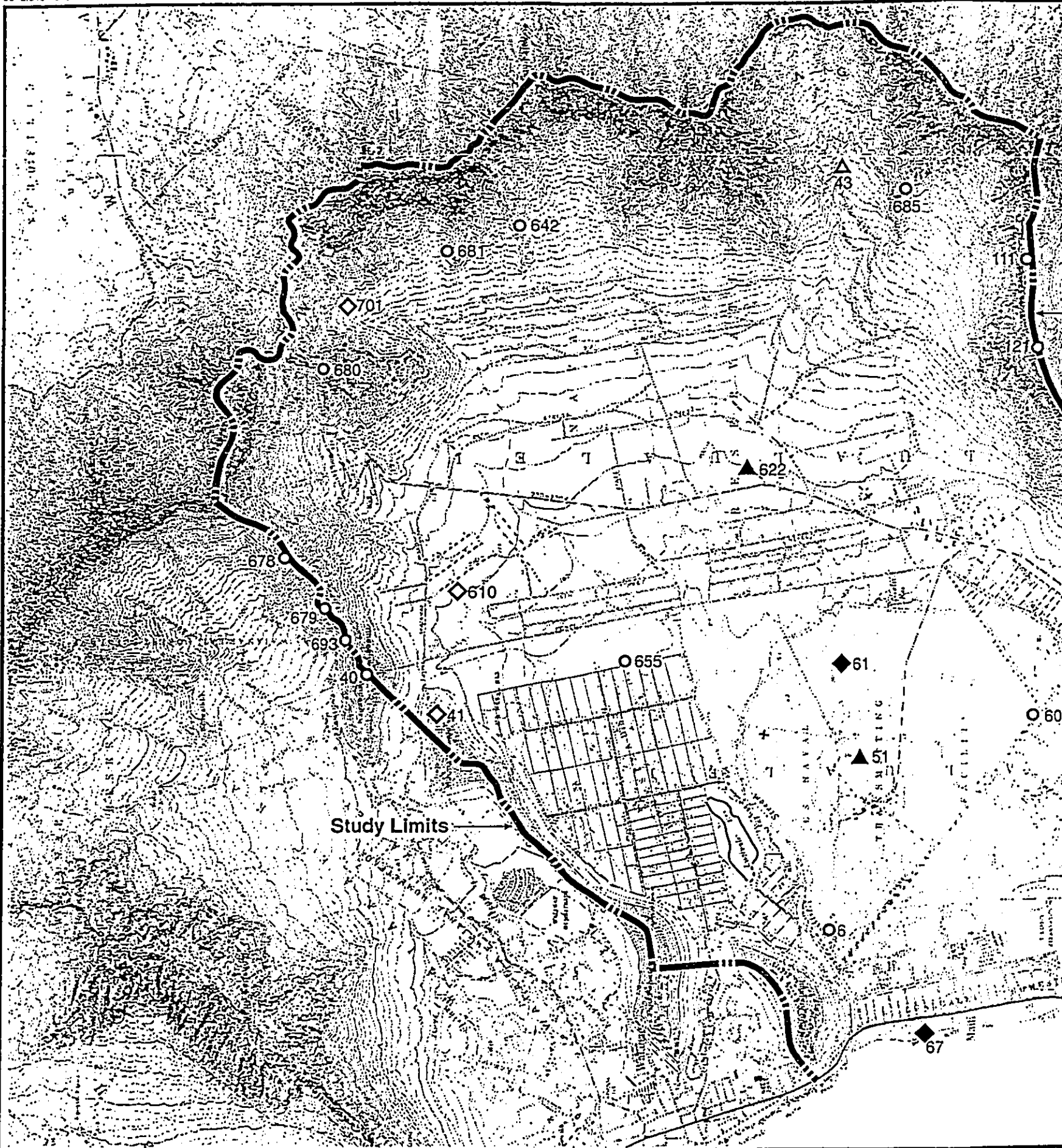
APPENDIX D

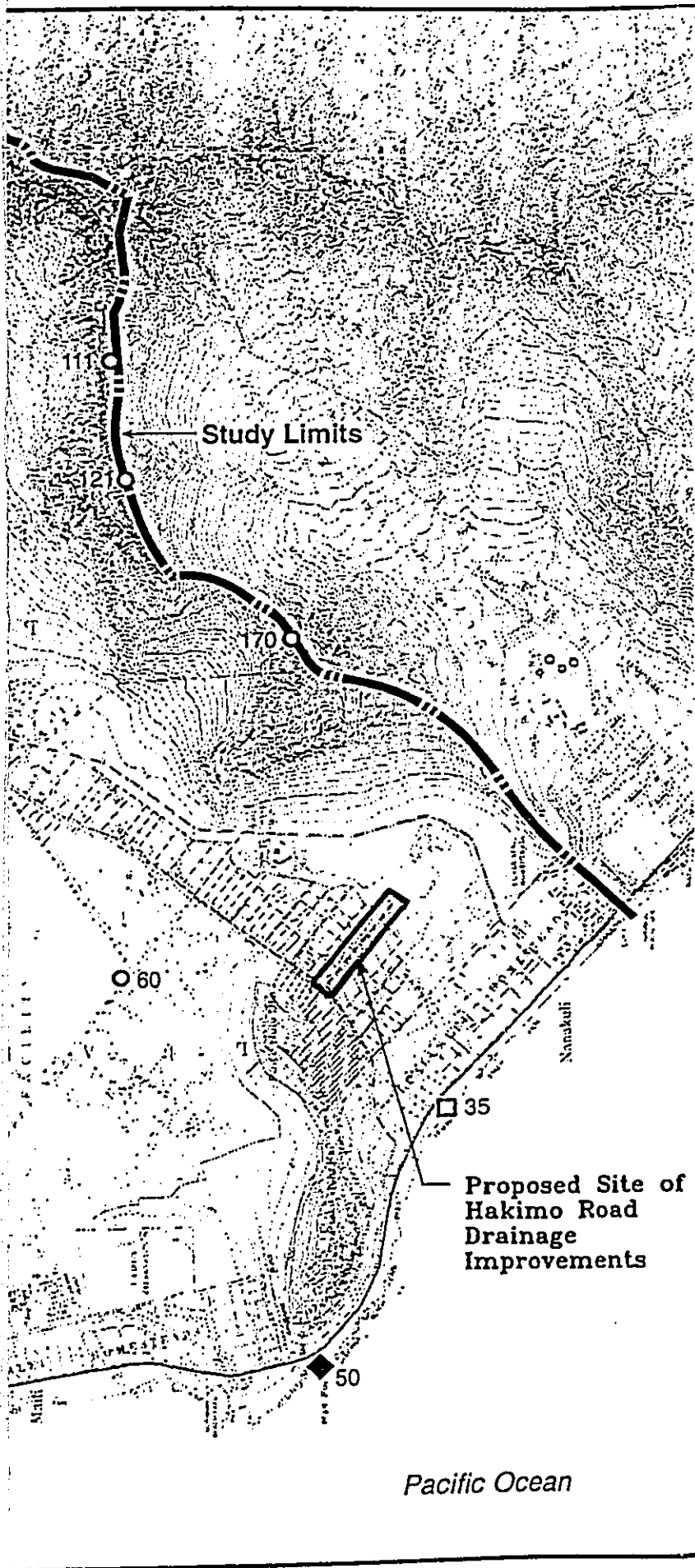
ENDANGERED/SIGNIFICANT FAUNA AND FLORA

Source: Lualualei Flood Study - Environmental Survey
(Belt Collins Hawaii, September 2001)

DOCUMENT CAPTURED AS RECEIVED

9842.010-4/010-1 k8/7/01





LEGEND

- Specific, Confirmed - Location confirmed up to 6 meters of mapped symbol
- ◇ Specific - Location reported within a 0.33 mile radius of mapped symbol
- △ Medium - Location reported within a 1.5 mile radius of mapped symbol
- General - Location reported within a 5 mile radius of mapped symbol
- Fauna
- ▣ Flora

Site #	Species Type & Accuracy Rating	Scientific Name
6	○	<i>Marsilea villosa</i> <i>Marsilea villosa</i> lowland dry herbland
35	□	<i>Lipochaeta lobata</i> var <i>lobata</i>
40	○	<i>Chamaesyce kuwaleana</i>
41	◇	<i>Chamaesyce kuwaleana</i>
43	△	<i>Pteralyxia macrocarpa</i>
50	◆	<i>Monachus schauinslandi</i>
51	▲	<i>Asio flammeus sandwichensis</i>
60	○	<i>Marsilea villosa</i>
61	◆	<i>Himantopus mexicanus knudseni</i> <i>Fulica alai</i> <i>Gallinula chloropus sandvicensis</i> <i>Anas wyvilliana</i>
67	◆	<i>Monachus schauinslandi</i>
111	○	<i>Lepidium arbuscula</i>
121	○	<i>Lipochaeta lobata</i> var <i>leptophylla</i>
170	○	<i>Schiedea ligustrina</i>
610	◇	<i>Marsilea villosa</i>
622	▲	<i>Asio flammeus sandwichensis</i>
642	○	<i>Pleomele forbesii</i>
655	○	<i>Marsilea villosa</i>
678	○	<i>Chamaesyce kuwaleana</i>
679	○	<i>Chamaesyce kuwaleana</i>
680	○	<i>Lipochaeta tenuis</i> <i>Lobelia niuhauensis</i> <i>Schiedea ligustrina</i> <i>Chamaesyce kuwaleana</i>
681	○	<i>Lobelia niuhauensis</i>
685	○	<i>Flueggea neowawraea</i>
693	○	<i>Panicum beecheyi</i>
701	◇	<i>Bobea sandwicensi</i>

Source: Hawaii Natural Heritage Program, November 2000.



Figure 2.2
ENDANGERED/SIGNIFICANT
FAUNA AND FLORA

Source: Lualualei Flood Study – Environmental Survey
Prepared by Belt Collins Hawaii
September 2001