DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-537

July 22, 1999

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

Dear Ms. Salmonson:

SUBJECT: Finding of No Significant Impact (FONSI)
Waimalu Tract Reconstructed Sewer
Waimalu, Aiea, Oahu, Hawaii
TMK: 9-8-10, 22, 23 and 24

The Department of Design and Construction (DDC), City and County of Honolulu, is the proposing and accepting agency for the above referenced project. DDC has reviewed and responded to comments on the draft environmental assessment for the project. The 30-day review period began on March 23, 1999. DDC has determined that implementation of this project will not have significant environmental effects. Therefore, the agency is issuing a Finding of No Significant Impact (FONSI). Please publish this notice in the August 8, 1999 Environmental Notice. We have enclosed a completed OEQC Bulletin Publication Form and four (4) copies of the final environmental assessment (EA).

Identification of the Proposing Agency
The Department of Design and Construction, City and County of Honolulu

Identification of the Accepting Agency
The Department of Design and Construction, City and County of Honolulu

Brief Description of Proposed Action
The proposed project consists of the replacement and rehabilitation of existing gravity sewers that are cracked and experience adverse grade due to soil consolidation.

Determination
Finding of No Significant Impact (FONSI)

99

Reasons supporting the determination
This determination is based on the significance criteria listed in §11-200-12 of the Environmental Impact Statement Rules. Specifically, these significance criteria are addressed below:

1. The proposed project will not result in an irrevocable commitment to loss or destruction of any natural or cultural resources. The project site is fully developed and utilized for residential, apartment, and business purposes. No significant natural or cultural resources are known to exist at the site.

2. The range of the beneficial uses of the environment will not be curtailed. The project site will beneficially affect the environment since possibilities of wastewater spills and overflows would be reduced.

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 damage sensitive natural resources and will beneficially affect the natural resources since possible wastewater spills and overflows would be reduced.

4. The project will not adversely affect the economic or social welfare of the community or State. The community will benefit from the project since the reconstructed sewer system would have less probability of system backups.

5. The project will not substantially affect public health. The proposed project will improve public health by repairing the existing deteriorated sewer lines and realigning the sewer lines to avoid backups and overflows in the collection system.

6. The project will not involve substantial secondary impacts, such as population change or effects on public facilities. The project will not induce population growth since the site is fully developed and does not contain public recreation facilities.

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

8. The project is individually limited and cumulatively does not have a significant effect upon the environment nor involves a commitment for larger actions. The proposed project is an individual project and essentially involves the replacement and rehabilitation of existing defective gravity sewers.

9. The project will not substantially affect a rare, threatened or endangered species, or its habitat. The site is primarily residential and does not contain known threatened or endangered flora, fauna or habitats.

10. The project will not detrimentally affect air quality, water quality or ambient noise levels. Short-term impacts may occur during construction of the project. The contractor will comply with current Department of Health regulations and provide best management practices where applicable.

11. 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 is not located in a tsunami evacuation zone or flood inundation zone as shown on the flood insurance maps.

12. The project will not substantially affect scenic vistas or view lanes as identified in County or State plans or studies. The construction activities will occur within City-owned right-of-ways and existing sewage easements. The project will not affect scenic views.

13. The project will not require substantial energy consumption.

Contact Persons for Further Information

Proposing Agency: Mr. Carl Arakaki
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
(808) 523-4671

Consultant: Mr. David B. Bills, Senior Vice President
Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
(808) 521-0306

Very truly yours,

FOR RANDALL K. FUJIKI
Director

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

DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

WAIMALU TRACT RECONSTRUCTED SEWER

WAIMALU, OAHU, HAWAII

TMK: 9-8-10, 22, 23 and 24

FINAL ENVIRONMENTAL ASSESSMENT

Gray · Hong · Bills & Associates, Inc.
CONSULTING ENGINEERS

119 Merchant Street, Suite 607, Honolulu, Hawaii 96813, Tel: (808) 521-0306, Fax: (808) 531-8018

1999-08-08-OA-FEA

(WAIMALU STREAM DREDGING)

DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

WAIMALU TRACT RECONSTRUCTED SEWER

WAIMALU, OAHU, HAWAII

TMK: 9-8-10, 22, 23 and 24

FINAL ENVIRONMENTAL ASSESSMENT

This environmental document was prepared pursuant to Chapter 343, Hawaii Revised Statutes

PROPOSING AGENCY:

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

RESPONSIBLE OFFICIAL:

FOR RANDALL K. FUJIKI, Director

7.21.99
Date

Prepared By:

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813

July 1999

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CITY AND COUNTY OF HONOLULU

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Very truly yours,

FOR RANDALL K. FUJIKI
Director

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

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I. DESCRIPTION OF THE PROPOSED ACTION and STATEMENT OF OBJECTIVES

The Environmental Assessment (EA) is prepared in accordance with Hawaii Revised Statues (HRS), Chapter 343, Environmental Impact Statement (EIS) and Hawaii Administrative Rules, Title 11, Chapter 200, Department of Health, Environmental Impact Statement Rules. The City and County of Honolulu is required to assess the significant potential impacts of the proposed action under HRS, Chapter 343 since the proposed action utilizes county funds.

An assessment at the earliest practicable time is necessary in order to determine and evaluate any significant environmental impacts from the proposed action. The potential impacts must be identified and evaluated to determine if there is a need for an environmental impact statement. Other agencies having jurisdiction or expertise were consulted during this assessment process. Review comments on the draft EA have been incorporated herein. The responses to the comments are included in Appendix A.

A. PROJECT DESCRIPTION

The proposed project is located in Waimalu, Aiea, Oahu, Hawaii (see Figure 1) and is part of the Honouliuli Wastewater System. Kamehameha Highway, Waimalu Stream, Moanalua Loop, and Moanalua Road (see Figure 2) bound the project area. The Waimalu Tract area generates wastewater flows from a primarily residential area and the Waimalu Shopping Center commercial area. Currently, the project site requires regular maintenance to prevent possible sewage spills and overflows due to grease build-up. The proposed project consists of the replacement and rehabilitation of existing gravity sewers that are cracked and experience adverse grade due to uneven soil consolidation.

B. STATEMENT OF OBJECTIVES

The objective of the proposed project is to evaluate the inadequacy of the Waimalu Tract collection system and recommend the most effective solution to replace sagging sewerlines. The Waimalu Tract sewer collection system was constructed during the 1950's within an area containing soils consisting of deep deposits of Pearl Harbor Clays that are generally soft and highly compressible. Over the years, the sewer system has deteriorated and cracked due to subsurface soil consolidation. A recent topographic survey identified that several stretches of pipeline within the project are at adverse grade

with manhole elevations significantly different from original construction. Television camera surveys have shown that many lines experience grease build-up and longitudinal and circumferential cracks from uneven settling of manholes. These conditions increase the possibility of spills, overflows, and/or backups within the collection system. The existing sewerlines require quarterly maintenance by City Collection System Maintenance crews to remove grease build-up. Therefore, the existing system should be replaced or rehabilitated in areas of soil settlement to improve current conditions and prevent possible spills or overflows.

C. ALTERNATIVES TO THE PROPOSED ACTION

1. Proposed Action

The proposed remediation of the Waimalu Tract area sewer system replaces and realigns adverse grade sewer segments to provide positive grade throughout the project site and rehabilitates existing cracked sewerlines at positive grade (see Figure 3). The primary feature of the proposed action is the construction of a new upstream siphon manhole over the existing siphon sewer that runs below Waimalu Stream (see Figure 3). The new siphon manhole lowers the invert of the reconstructed sewer system to allow minimum-required sewerline grade. Defective sewer segments experiencing adverse grade will be replaced and abandoned in place by new sewers. Remedial work will also be completed to repair leaking joints at the manholes and longitudinal and circumferential cracks along the sewerlines. The proposed method of new sewer line installation is the conventional open trenching technique that includes excavation and backfill for the length of the pipeline.

2. No Action

The No Action Alternative will be inconsistent with the planned policies of the City and County of Honolulu to provide an adequate and reliable wastewater collection system for the Waimalu Tract area. The sewer system will require continuing regular maintenance that may increase in frequency as the system continues to age. Therefore, without replacement of inadequate sewer segments, clogging and grease buildup will continue to occur due to sagging pipelines.

3. Delay the Project

Delaying the proposed project will not remedy the problem of sagging pipelines and adverse grade sewer segments. The clogging and grease build-up of the sewerlines would continue to occur. Construction at a later date will result in an increase in construction cost due to inflationary escalations and maintenance costs to regularly clean and maintain the aging sewerlines. Therefore, the Delay the Project alternative is not recommended.

4. Rejected Alternatives

Two (2) other alternatives were presented as solutions to replace the sagging sewer lines within the Waimalu Tract area. Both rejected alternatives utilize a low point at an easily accessible location for maintenance by City and County of Honolulu's Collection System Maintenance crews. Continuing regular maintenance would be required to prevent backups and possible overflows and spills. In addition, the estimated construction and maintenance costs for both rejected alternatives are higher than the proposed alternative. Therefore, implementing one of the rejected alternatives is not appropriate.

a. *Rejected Alternative I*

Rejected Alternative I utilizes the same horizontal and vertical alignment for the reconstructed sewer system as the Proposed Action with one exception. A new siphon manhole is not constructed and thereby avoids bypass pumping across Waimalu Stream. However, to provide positive grade throughout the site, the invert of the reconstructed sewer system is lowered by creating a system low point at the sewer manhole immediately upstream of the siphon manhole. Therefore, the majority of the grease build-up and cleaning would be consolidated at the forced low point. Since, the created low point and siphon manhole are both located within a City and County of Honolulu-owned parcel, maintenance crews would have convenient access for ongoing quarterly maintenance.

b. *Rejected Alternative II*

Similar with Rejected Alternative I, Rejected Alternative II creates a low point within the system at the sewer manhole immediately upstream of the siphon manhole within a City & County of Honolulu-owned parcel. However, Rejected Alternative II replaces the existing sewer with new sewer in the original horizontal and vertical alignment as shown on the original construction with sizes altered to accommodate future flows. The concern is that the soil prism beneath the roadway may not be homogenous and sewer reinstallation at the identical location would minimize future settling. As with Rejected Alternative I, this alternative allows convenient access for ongoing quarterly maintenance at the forced system low point.

5. Alternate Construction Method

A trenchless construction method of microtunneling that utilizes hydraulic jacks to push pipes through the ground behind a tunnel-boring machine was considered as an alternative construction method. This construction method traditionally requires jacking (start of pipeline) pits approximately 20-feet long by 10-feet wide by 15-feet deep and approximately 100-feet of on- or off-road "setup" area for the control room, pipes and other miscellaneous equipment. The project site is primarily residential and a microtunneling "setup" area may interfere with the daily activities of the residents. Since the project site also contains many narrow streets, tight utility corridors and numerous laterals, microtunneling was dismissed as the preferred construction method.

II. AGENCIES CONSULTED IN THE ASSESSMENT PROCESS

The proposed project is an agency-proposed action by the City and County of Honolulu and must undergo evaluation to determine the significance of the various environmental impacts. The assessment process provides for such an evaluation by publishing the contents of the agency's environmental assessment and soliciting comments from other agencies and the general public. The solicited comments provide information for filing a determination. Comments solicited include but are not limited to the following agencies.

A. UNITED STATES OF AMERICA

Department of the Interior, Fish & Wildlife Services

Department of the Army, Corps of Engineers

B. STATE OF HAWAII

Department of Health (DOH)
- Clean Water Branch (CWB)
- Clean Air Branch (CAB)
- Hazard Evaluation & Emergency Response Office (HEER)
- Noise, Radiation and Indoor Air Quality Branch (NR&IAQB)
- Office of Environmental Quality Control (OEQC)
- Wastewater Branch (WWB)

Department of Land and Natural Resources (DLNR)
- Historic Preservation Division

Department of Transportation (DOT)

Department of Business, Economic Development and Tourism (DBEDT)
- Office of Planning

C. CITY AND COUNTY OF HONOLULU

Aiea Neighborhood Board No. 20

Board of Water Supply (BWS)

Department of Facility Maintenance (DFM)

Department of Environmental Services (ENV)
- Storm Water Quality Branch

Department of Planning & Permitting (DPP)

Department of Transportation Services (DTS)

Honolulu Fire Department (HFD)

Honolulu Police Department (HPD)

Planning Department (DPL)

D. OTHERS

Hawaiian Electric Company, Inc. (HECO)

GTE Hawaiian Telephone Company

GASCO, Inc.

Oceanic Cablevision

III. DESCRIPTION OF THE AFFECTED ENVIRONMENT

A. PROJECT LOCATION

The Waimalu Tract Reconstructed Sewer project location is shown on Figure 2. The proposed project serves a tributary area of 116 acres (Figure 4). However, the proposed sewer replacement and rehabilitation are limited to the right-of-ways in these affected roadways: Olepe Loop, Lokowai Street, Kauwa Street, Hekaha Street, Pahemo Street, Lii-Ipo Street, and Kanuku Street. The project also includes construction within an existing easement off Hekaha Street near Moanalua Road. The proposed project will be constructed within existing street right-of-ways or sewage easements in favor of the City and County of Honolulu.

B. TOPOGRAPHY and CLIMATE

The project location is within the central coastal lowland area of Oahu along the East Loch of Pearl Harbor. The topography of the project area is relatively flat with a slight upward incline to the project's eastern end (east of Kanuku Street). The existing ground elevation ranges between 3 feet and 12 feet mean sea level (MSL).

Along with the other islands of Hawaii, Oahu lies within the tropic zone between the Tropic of Cancer and the Tropic of Capricorn. The average daily minimum temperature is in the low 70s (Fahrenheit) during the coolest months, February through March. During the hottest months of August through September, the average daily maximum temperature is approximately 85 degrees Fahrenheit.

C. INFRASTRUCTURE

Utilities such as water, drainage, sewer, aboveground power, cable and telephone are available within the project area. The proposed routes were chosen to avoid crossing and interfering with existing utility lines to the best possible extent based on the topographic survey.

D. LAND USE and ZONING

The State Department of Land and Natural Resources designates the project area as an Urban District. The City and County of Honolulu, Department of Planning & Permitting designate the project's tributary area as residential R-5, business B-2 and apartment A-2 (see Figure 5).

E. NATURAL HAZARDS

The project is within an area where the flood hazard is not determined (Zone D) by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM). The project site is located *mauka* of the Special Management Area (SMA) boundary as designated by the City

Department of Planning and Permitting. The project site is not located in a *tsunami* evacuation zone. The entire island of Oahu is in seismic Zone 2A as determined in the 1994 edition of the Uniform Building Code.

F. BIOLOGICAL RESOURCES

There are no known conditions of significant impact on wildlife in the area. There are no known endangered flora or fauna within the project area.

G. ARCHAEOLOGICAL and HISTORIC SITES

There are no known natural, historical or archaeological sites within the project area. However, should any evidence of historical and/or archaeological sites be encountered during excavation, the contractor shall immediately stop work and notify the State Historic Preservation Office for a field investigation.

H. SOILS

Test borings indicated that the following subsurface materials were found at the project site: 1) fill that generally consists of very stiff clayey silts with sand and gravel or medium dense silty gravel; 2) alluvial soils comprising of clayey silts or silty sands and gravel; and 3) lagoonal silts that consist of very soft to soft clayey and organic silts. A detailed evaluation of the subsurface materials may be found in the Waimalu Tract Reconstructed Sewer Geotechnical Engineering Report completed by Fewell Geotechnical Engineering, Ltd. (1998).

Possible subsurface hydrocarbon odors were observed in a test boring completed near the Olepe Loop Drainage Pump Station (see Figure 6) in August 1996. During April 1997, a diesel underground storage tank (UST) at the drainage pump station was closed and removed. The Olepe Loop Drainage Pump Station Closure Report (Edward K. Noda & Associates, Inc., 1997) indicates that the system had no indication of corrosion holes, damage or leakage. Petroleum contamination was not observed in the soil or groundwater around the tank or UST system during excavation. However, minor groundwater sheen was detected two (2) days after excavation. Soil and groundwater samples were taken and analyzed for various petroleum compounds. The petroleum concentrations in the samples did not exceed the State Department of Health's Action Levels for Soil and Groundwater (ALSG) limits. Other parameters tested for indicated concentrations below or slightly above the method reporting limit for the following analytes: total petroleum hydrocarbons as diesel (TPH-D), benzene, ethylbenzene, toluene, and xylene (BTEX), polynuclear aromatic hydrocarbons (PAH), total lead and total cadmium.

The UST closure report stated that no significant release(s) of petroleum products was detected during the removal and closure of the UST and the limited release was satisfactorily cleaned up. Additional investigative or remedial activities regarding the UST system were not deemed necessary. Therefore, soil contamination encountered at the project site is not anticipated.

During construction, best management practices (BMPs) will be employed to reduce and control discharge of potential pollutants (i.e., silt and fines). In addition, the contractor will visually monitor the soil excavation and groundwater for possible contamination (such as sheen on the groundwater or odors). If possible contamination is suspected, the contractor should obtain and analyze the soil for hazardous substances. Once contamination is detected and confirmed, the contractor will treat the excavated materials to comply with the U.S. Environmental Protection Agency (EPA) and State Department of Health (DOH) requirements. The proper handling and disposal measures are discussed in Section VI.A.

I. WATER QUALITY

The subject site is located *mauka* (up gradient) of the Department of Health's Underground Injection Control (UIC) line. The UIC map for Waipahu (O-9) shows that there are a few drinking water wells *mauka* of the project site, particularly near the sewage easement off Hekaha Street. The map also indicates that there are no known underground injection wells near the site. The University of Hawaii Water Resources Research Center (WRRC) Aquifer Identification and Classification Report for Oahu (Mink and Lau, 1990) indicates that the groundwater located beneath the site is part of the Waimalu aquifer system. According to the classification system used in the WRRC report (see Table 1 on the following page), the basalt Waimalu aquifer is suitable for drinking water purposes and currently used. Public drinking water wells are situated *mauka* of the project site.

As stated previously, possible hydrocarbon contamination was suspected on a soil test boring in the vicinity of the Olepe Loop Drainage Pump Station. However, the UST closure report for the drainage pump station indicated that remedial actions for the minor sheen detected were unnecessary. Although groundwater contamination is not anticipated, the contractor will visually monitor the groundwater and dewatering effluent for changes in water quality, including color, turbidity, suspended solids, and petroleum sheen. If hazardous materials are suspected, the contractor will have the groundwater tested for hazardous substances. Should the presence of hazardous materials be confirmed, work shall be halted until the contamination is assessed and procedures in accordance with the State Hazard and Emergency Response rules are arranged. The contractor will be required to visually monitor groundwater discharges throughout the project's duration.

Table 1. WRRC REPORT AQUIFER CLASSIFICATION*	
Aquifer Code	**30201111**
Island Code	3 - Oahu
Aquifer Sector	02 - Pearl Harbor
Aquifer System	01 - Waimalu
Aquifer Type, Hydrology	1 - Basal
Aquifer Type, Confinement	1 - Unconfined
Aquifer Type, Geology	1 - Flank
Status Code (Groundwater)	**(11111)**
Development Stage	1 - Currently used
Utility	1 - Drinking water
Salinity	1 - Fresh (<250 mg/l Cl^-)
Uniqueness	1 - Irreplaceable
Vulnerability to Contamination	1 - High

*See Appendix B for report map.

Most dewatering discharges are expected to occur along the proposed sewer alignment where the invert is below 2.0 feet mean sea level (MSL). Since the project site is near Pearl Harbor and the groundwater lies close to the ground surface, the use of area-wide dewatering may cause ground and building foundation instability. Therefore, a practical means of dewatering is hydraulic isolation of the working (dewatering) trench section from the surrounding groundwater and limiting the dewatering to only that trench section. There are many methods to accomplish hydraulic isolation and may be chosen by the contractor. The most common method includes sheeting and shoring along the trench and constructing a dam within the trench to create a working (dewatering) section and inactive (recharge) section. To provide dry working conditions, the working trench section is pumped out. The inactive (recharge) trench section is utilized to percolate dewatering discharge back into the groundwater. Although this method of dewatering should have negligible impacts, the contractor should monitor the groundwater table and surrounding soil stability and possible ground settlement.

Dewatering effluent may be returned either into the ground via a recharge trench, discharged to a surface water body via a drainage system, or to the municipal sanitary sewer system after proper treatment in accordance with governing statutes and rules. Should trench dewatering effluent

discharge to State waters, a NPDES General Permit for Discharges Associated with Construction Activity Dewatering must be obtained from the State Department of Health (DOH). In addition, a NPDES General Permit for Discharges Associated with Hydrotesting Activity will be required if hydrotesting effluent is discharged to state waters.

The NPDES General Permits are consistent with Hawaii Administrative Rules (HAR) Chapter 11-54, "Water Quality Standards" and Chapter 11-55, "Water Pollution Control" and approved by DOH, Clean Water Branch. The contractor will be required to implement best management practices (BMPs) for dewatering treatment prior to commencing dewatering activities in accordance with HAR Chapter 11-55. DOH has approved BMPs that include the use of sedimentation tanks and filtration for removal of soil. Where petroleum contamination is confirmed, free product may be skimmed off the surface and an oil/water separator will be utilized to remove the miscible oils. Granular activated carbon (GAC) filters may also be utilized to remove any dissolved organics and contaminants. If the above methods of BMPs cannot reduce the level of contaminants to allowable levels of storm water discharge as allowed in HAR, the dewatering effluent may either be returned to the ground if permitted by DOH or transported to authorized vendors for treatment and disposal. Groundwater test reports must also be submitted to DOH with the testing frequency depending on the type of discharge (continuous or intermittent).

In addition, should dewatering effluent be discharged to State waters via a City storm drain system, a construction dewatering discharge permit will be required by the City Department of Planning and Permitting (DPP). During construction, best management practices will be employed to reduce and control discharge of pollutants.

The proposed project includes the construction of a new siphon manhole with a bypass pumping setup to convey wastewater across Waimalu Stream Channel during the interim. The contractor may choose the method of bypass pumping. However, precautions must be taken by the contractor such as backup bypass pumping capacity and pipeline jacket to prevent a spill. Temporary bypass pumping across waterways is not regulated. However, should a spill occur, Department of the Army Corps of Engineers, Department of Health and Department of Land and Natural Resources reporting, monitoring and cleanup requirements must be fulfilled. The proper handling and bypass techniques are discussed in Section VI.B.

J. AIR QUALITY

The primary source of air pollution is from vehicular emissions with carbon monoxide being the most abundant pollutant emitted. The Department of Health (DOH) Clean Air Branch enforces the State of Hawaii Ambient Air Quality Standards (AAQS); and the standards are provided in Hawaii Administrative Rules (HAR) Title 11, Chapter 59. The proposed construction activities are expected to affect the air quality, primarily from construction equipment and vehicle exhaust emissions that would produce short-term impacts.

The proposed method of new sewerline construction is conventional open trenching, which includes excavation and backfill for the entire length of pipeline. As a result, there is a potential for fugitive dust to be generated during construction. However, fugitive dust is not expected to be significant because construction will take place in saturated soils and excavated soils will be continually wetted down to keep dust from migrating. Construction activities will comply with provisions of HAR Chapter 11-60 on Fugitive Dust. Further mitigative measures are discussed in Section VI.C.

K. NOISE

The primary source of ambient noise is from vehicular traffic. The State of Hawaii noise limits are stated in the "Vehicular Noise Control for Oahu," Title 11, Chapter 42 and the "Community Noise Control" Title 11, Chapter 46 Standards of the Hawaii Administrative Rules (HAR). The enforcing agency of these standards is the Department of Health (DOH) Noise, Radiation and Indoor Air Quality Branch. The current DOH allowable noise limits for residential, apartment and community business properties on Oahu are shown below.

Table 2.

Allowable Noise Level at Property Line

Zoning	Daytime (7:00 a.m. - 10:00 p.m.)	Nighttime (10:00 p.m. - 7:00 a.m.)
Residential	55 dBA*	45 dBA
Apartment	60 dBA	50 dBA
Community Business	60 dBA	50 dBA

*dBA (decibels)

The proposed construction activities would increase the noise level in excess of the allowable noise limits. Mitigation measures to reduce the noise level impacts to the surrounding environment are discussed in Section VI.D.

L. TRAFFIC

The proposed sewer line alignment runs within two (2) moderately heavily traveled side streets, Kanuku Street and Hekaha Street, and near the heavily used Kamehameha Highway. Construction activities may temporarily affect traffic on all roadways, especially near the working trench section(s). Kauwa Street is primarily used as a backdoor access road for larger vehicles that stock and supply merchants of the Waimalu Shopping Center. Therefore, construction activities along Kauwa Street may pose a traffic-related impact. The other streets within the project area may have less of a construction-related traffic impact since they are used primarily by residential traffic. Detailed traffic impacts and mitigation measures are discussed in Section VI.E.

IV. GENERAL DESCRIPTION OF THE ACTION'S TECHNICAL, SOCIAL and ECONOMIC CHARACTERISTICS

A. TECHNICAL CHARACTERISTICS

The proposed method of new sewer pipeline installation is "cut and cover" trench construction. This conventional open trenching technique requires excavation and backfill for the length of the new sewer line. An alternative construction method using microtunneling, a trenchless construction method that utilizes hydraulic jacks to push pipes through the ground behind a tunnel-boring machine, was briefly considered. Since the project area is primarily residential with numerous laterals throughout the alignment and narrow corridors, microtunneling was dismissed as the preferred construction method.

The conventional open trenching technique will need to include sheeting and shoring to hydraulically isolate and dewater the working trench section. The bottom of the dewatering (working) trench may be constructed with interlocking sheet pile sidewalls and may be sealed with mudsills of hydraulic grout. The contractor must be cognizant of the possibility of ground subsidence while dewatering the working trench. Therefore, the contractor will be required to provide inclinometers throughout the entire sewer line alignment to monitor subsidence from changes in the groundwater table.

There are two common methods used for pipe rehabilitation. One method is the insertion of a flexible high-density polyethylene (HDPE) liner pipe and injection of concrete grout in the annular space between the line and the original pipe. The other method is a cured-in-place fiberglass pipe (CIPP) that is hydraulically pressurized to be flush to the existing pipes (or may bridge any voids), then thermally cured to rigid form.

In order to accomplish the sewer line reconstruction, various segments of the sewer line must be temporarily taken out of service. The contractor will be required to setup temporary bypass pumping stations through the construction period to ensure continuous sewage flow within the tributary area. The use of temporary bypass pumping stations should not have any impact on the general public.

The technical characteristics of the proposed project are based on preliminary studies. Changes are anticipated during the design and construction stages to correspond with final engineering calculations and to accommodate actual field conditions. Nevertheless, the proposed project construction will be specified to meet all City and County of Honolulu standards.

B. SOCIAL and ECONOMIC CHARACTERISTICS

The project area lies within a primarily residential district in Leeward, Oahu. The general mix of land uses consists of residential, apartment and community business. The estimated construction capital cost is approximately $2.3 million. Construction funds will be appropriated from the City and County of Honolulu's Capital Improvement Program. The City Sewer Collection System user service fees are assessed uniformly islandwide. The total cost of the proposed project and other unrelated capital improvement projects may increase the user service fees for all serviced Oahu residents, not only the residents served by the proposed project.

V. IDENTIFICATION and SUMMARY OF MAJOR IMPACTS and PROPOSED MITIGATION MEASURES

The probable impacts to the environment resulting from the proposed project can be divided into two (2) categories: 1) short term impacts associated with construction activities and 2) long term impacts that follow the construction period. The long term impacts of the proposed construction would be negligible and the project would improved sewer services for the residents and businesses. The environmental impacts are primarily short-term.

A. EXCAVATED MATERIAL

The contractor will be required to monitor the soil for petroleum contamination during construction. If contamination is suspected (such as sheen on groundwater or hydrocarbon odors), the contractor will test the soil for hazardous substances. Testing shall determine if such substances comprise hazardous waste according to the Resource Conservation and Recovery Act (RCRA). If the samples indicate contamination, the contractor will treat excavated materials to comply with the U.S. Environmental Protection Agency (EPA) and State Department of Health (DOH) requirements.

The State of Hawaii has a Contingency Plan that is outlined in 1996 DOH Technical Guidance Manual (TGM) that provides interim guidelines only. Adherence to the information contained in the TGM is voluntary. However, the guidelines and the rules and regulations on Environmental Response or any other applicable federal, state and county requirements will be incorporated in this project as best management practices to minimize soil contamination and control hazardous substance releases. As such, the contractor will be responsible for treating and disposing contaminated soil at an approved site.

Petroleum impacted soil may be left in place at the release site. However, the contractor shall consult with DOH Solid and Hazardous Waste Branch prior to such action. Contaminated soil may be spread on windrows or the ground to let the volatile organics such as benzene, ethylbenzene evaporate into the atmosphere, if space is available. The contaminated soil may also be bio-remediated with the use of microorganisms. For faster results or if land is not readily available, the contaminated soil may be thermally treated. The treated soil will be first tested to determine whether it is below action levels, then hauled to a city landfill for disposal.

B. WATER QUALITY

The proposed project includes the construction of a new siphon manhole that will require bypass pumping of wastewater across Waimalu Stream Channel during construction. Currently, there are no

regulations regarding the temporary bypass pumping across a waterway. Should a spill occur, the Department of the Army-Corps of Engineers, Department of Land and Natural Resources and the Department of Health each have cleanup, testing and monitoring requirements that must be fulfilled. In addition, the Department of Health, Clean Water Branch will be contacted and the "Protocol for Sewage Spills, Spills to Surface Waters section (revised September 1995)" will be followed.

C. AIR QUALITY

All construction activities will need to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 60, "Air Pollution Control". The proposed construction activities are expected to affect the air quality in the vicinity of the work area. The long-term impacts will be negligible but construction equipment and vehicle exhaust emissions will primarily produce short-term impacts to the ambient air quality.

Hydrocarbon emissions from the construction equipment and vehicles are expected. This should not significantly change the air environment in the project area which is bounded by heavily-traveled roadways (Kamehameha Highway, Moanalua Road and H-1 Freeway). The contractor will be required to use emission control devices on all construction vehicles.

Fugitive dust generated from the excavation and sheet piling activities are not anticipated to be significant since the soils in the area are generally saturated. The depth to groundwater is shallow along most of the proposed sewer alignments. The contractor will be required to implement best management practices (BMPs) to minimize the effects of possible fugitive dust. Adequate means of dust control during construction activities may include, but not limited to:

a) Planning different phases of construction, focus on minimizing the amount of dust generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of least impact;
b) Providing an adequate water source at the site prior to construction for frequent wetting down of loose soil areas;
c) Covering dirt hauling trucks; and
d) Providing adequate dust control measures during weekends, after hours and prior to daily startup of construction activities.

Since permanent on-street lane closure is not allowed, excavated soil may be stockpiled at a temporary location away from the job site or at the Olepe Loop Drainage Pump Station yard with Department of Facility Maintenance approval. The temporary stockpile will be wetted down with water and

covered to suppress dust. The contractor will be responsible for general housekeeping of the site and keeping adjacent areas free of mud and sediment.

D. NOISE

The proposed construction activities may increase noise levels in the vicinity of the working trench sections. The Hawaii Administrative Rules (HAR) Chapter 11-42 "Vehicular Noise Control for Oahu" and Chapter 11-46 "Community Noise Control" Standards are enforced by the Department of Health (DOH), Noise, Radiation and Indoor Air Quality Branch. The contractor will need to comply with the DOH HAR 11-42 and HAR 11-46 for the duration of the project.

Certain construction activities may exceed maximum allowable daytime and/or nighttime noise levels. Therefore, construction activities should be completed during the day as not to disturb the residents during the evening and night. A noise permit from DOH will be required to operate any excessive noise source that may emit noise levels in excess of the maximum permissible sound levels (MPSLs) as stated in HAR 11-46-6(a), provided that the activities are in the public interest and meet permit conditions. The permit allows for working hours between 7:00 a.m. and 6:00 p.m. of the same day, Monday through Friday, and between 9:00 a.m. and 6:00 p.m. on Saturday depending on the emitting noise level of the particular construction activity. The contractor will comply with the requirements retaining to construction activities as specified in the rules and conditions issued with the permit as stated in HAR 11-46. In addition, construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers as stated in HAR 11-46-6(b)(1)(A).

The construction activities must also comply with the provisions of Chapter 11-42, HAR, "Vehicular Noise Control for Oahu" as enforced by the DOH Noise, Radiation and Indoor Air Quality Branch. DOH inspectors and independent construction management personnel hired by the Department of Design and Construction will monitor the construction activities. Violations and/or noncompliance with terms of the permit or complaints from citizens may result in reductions or revocation of the noise permit.

E. TRAFFIC

The proposed sewer alignments are along two (2) moderately heavy traveled side-streets, Hekaha Street and Kanuku Street, in the vicinity of Kamehameha Highway and Moanalua Road. Any construction on these roads would cause adverse traffic impacts, especially during the peak hours from 7:00 a.m. to 8:30 a.m. and 3:30 p.m. to 6:00 p.m. Since the project area is primarily residential, local vehicular and pedestrian access should try to be maintained at all times. The degree of traffic impacts

is related to open working trench location and allowable work hours. Therefore, construction in the roadway area may be limited to the non-peak hours between 8:30 a.m. and 3:30 p.m., Monday through Friday, to avoid interference with normal daytime activities. The contractor will temporarily cover the open trench sections with a material that has live vehicle bearing load capacity (such as steel plates) when construction activities are through for the day.

Open working trench sections along the proposed sewer alignments will require either decreasing the usable lanes from two to one with monitoring or allowing only local traffic access depending on the location of the trench section. Closing of the roadway to all thru traffic will require non-local vehicles to take other parallel streets (e.g., With construction along Lokowai Street, vehicles may use Lii-Ipo Street).

Proposed work on Kauwa Street will be within a roadway used primarily for backdoor access by merchants of Waimalu Shopping Center. Although the roadway is 20 feet wide, with an open working trench section, larger vehicles may lose access to the back doors of the shops. Construction along Kauwa Street may be specified for night work with the appropriate noise variance and community consideration. However, night construction may not be desirable since it will occur adjacent to residential properties. The affected merchants should be contacted to determine a construction schedule that will least affect business.

Special arrangements may be required to complete the sewer line replacement work proposed for the 10-foot wide sewage easement off Hekaha Street near Moanalua Road. The property owners and residents abutting the easement may experience some inconvenience from construction-related noises and disrupted "backyard" landscaping near the easement. Excavation and construction equipment required to replace the sewer will need to enter private property to access the existing sewer line within the easement. Therefore, an arrangement between the contractor, Department of Design and Construction and the property owners should be worked out to provide access to the easement so construction may proceed. If an arrangement cannot be agreed upon or construction equipment cannot access the easement, regular maintenance will be continued to prevent backup and possible spills and overflows.

The contractor must comply with safety precautions and measures as prescribed in the "Rules and Regulations Governing Use of Traffic Control Devices at Work Sites or Adjacent to Public Streets and Public Highways," as adopted by the State Highways Safety Coordinator, and part VI, "Traffic Controls for Highway Construction and Maintenance Operations," of the "Manual on Uniform Traffic

Control Devices for Streets and Highways," 1988.

If roadway closures are required, the contractor shall publish a "Notice to Motorist" in the daily newspaper(s) detailing the closure of roadways and clearly indicating the suggested/recommended routes motorists are to take. The area residents, businesses and neighborhood board will be informed of the proposed roadwork. In addition, emergency personnel (ambulance, fire and police) will be informed of the roadwork. Lastly, in the event of roadway closures, the City Department of Transportation Services (DTS) will be provided with information regarding the construction activities and scheduling. DTS will alert the transit operator of the construction activity, if necessary.

All existing street improvements (i.e., pavement, traffic control devices, curbs, gutters, etc.) will be restored to original or better condition after installation of the sewer line. Traffic to and from the private properties will be provided at all times or the contractor will provide suitable accommodations. The contractor will be required to minimize inconveniences to the property owners. Private right-of-ways and driveways will be kept open at all times, unless the owners at the properties using these right-of-ways are provided for satisfactorily. All driveway approaches and other private property improvements will be restored to original or better condition after the installation of the sewerline.

The service of off-duty police officers must be obtained for traffic control. The Department of Environmental Services will monitor compliance with the Street Usage Permit conditions; and the State Department of Transportation (DOT) and City and County of Honolulu, Department of Transportation Services (DTS) will enforce the permit conditions.

VI. LIST OF PERMITS

The project area (*mauka* of Kamehameha Highway) is not subject to Special Management Area (SMP), Corps of Engineers (COE), Coastal Zone Management (CZM), Shoreline Setback Variance (SSV), and Historic Preservation permits. However, the project shall be subject to the provisions of HRS Chapter 343 and HAR Chapter 11-200, Environmental Impact Statement Rules, since government funds will be used to implement the project. The following permits and clearances may be required as part of this project:

State of Hawaii:

Noise Permit (DOH, Noise, Radiation and Indoor Air Quality Branch)

NPDES General Permit for Discharges Associated with Construction Activity Dewatering (DOH, Clean Water Branch)

City & County of Honolulu

Construction Dewatering Permit to Discharge into City & County of Honolulu Separate Storm Sewer System (DPP)

Sewer Connection Permit (WWM)

Public Right-of-Way - Permit to Excavate (DPP)

Street Usage Permit (DTS)

Grubbing, Grading, and Stockpiling Permit (DPP)

VII. DETERMINATION

In accordance with Chapter 343, Hawaii Revised Statutes, this Environmental Assessment has characterized the technical and environmental issues of the Waimalu Tract Reconstructed Sewer project, identified potential impacts and their significance. It is anticipated that the proposed project will not significantly impact the environment. Therefore, the determination of a Finding of No Significant Impact (FONSI) is anticipated, and an Environmental Impact Statement would not be required for this project. This determination is based on the significant criteria listed in HAR, Chapter 11-200-12 of the Environmental Impact Statement Rules. Specifically these significant criteria are addressed below:

a. ***The project will not involve an irrevocable commitment to loss or destruction of any natural or cultural resources.*** The Site is fully developed and utilized for residential, apartment and business purposes. No significant natural or cultural resources are known to exist at the Site.

b. ***The project will not curtail the range of beneficial uses of the environment.*** The Site will beneficially affect the environment since possibilities of wastewater spills and overflows would be reduced.

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 proposed project will not conflict with the environmental policies of set forth in the State Plan and Chapter 344, Hawaii Revised Statues in that the project will not damage sensitive natural resources nor emit contaminants. The project will beneficially affect the natural resources since possible wastewater spills and overflows would be reduced.

d. ***The project will not substantially affect the economic or social welfare of the community or State.*** The short term social welfare of the community may be negatively affected by the inconveniences (e.g., increased traffic due to road closures, daytime noise, etc.) during the project's construction. However, the community would benefit from the project since the reconstructed sewer system would have reduced the possibility of system backups. The total cost of the proposed project and other unrelated City capital improvement projects may increase the user services charges for all serviced Oahu residents.

e. ***The project will not substantially affect public health.*** The proposed project will beneficially affect public health by decreasing the possibility wastewater spills, overflows and backups caused by sewerlines at adverse grade.

f. ***The project will not involve substantial secondary impacts, such as population change or effects on public facilities.*** The proposed project will not induce population growth since the Site is fully

developed and does not contain public recreation facilities.

g. ***The project will not involve a substantial degradation of environmental quality.*** The proposed project will beneficially affect the environmental quality by decreasing the possibility of wastewater spills, overflows and backups.

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 project is an individual project and is not part of a larger overall plan of action. The proposed project will beneficially affect the environment.

i. ***The project will not substantially affect a rare, threatened or endangered species, or its habitat.*** The Site is primarily residential and does not contain known threatened or endangered flora, fauna or habitats.

j. ***The project will not detrimentally affect air quality, water quality or ambient noise levels.*** Short-term impacts may occur during construction of the project. The contractor will comply with current DOH regulations and provide best management practices where applicable.

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 Site is not located in a tsunami evacuation zone or a flood inundation zone as shown on the flood insurance maps. The Site is not located in the Special Management Area.

l. ***The project will not substantially affect scenic vistas or view lanes as identified in County or State plans or studies.*** The proposed project will occur within City and County of Honolulu-owned right-of-ways and existing sewage easements and will not affect scenic views.

m. ***The proposed project will not require substantial energy consumption.*** Since a gravity sewer system will be reconstructed, the proposed project will not require energy consumption.

VIII. REFERENCES

Edward K. Noda & Associates, Inc., "Closure of One (1) Underground Storage Tank (UST), Olepe Loop Drainage Pump Station, DOH UST Facility ID #9-200143, DOH UST Release ID #97-0079", August 1997.

Fewell Geotechnical Engineering, Ltd., "Waimalu Reconstructed Sewer Geotechnical Engineering Report," August 1998.

Mink, John F. and Stephen L. Lau, "Aquifer Identification and Classification of Oahu: Ground Water Protection Strategy for Hawaii," Water Resources Research Center Technical Report No. 179, University of Hawaii at Manoa, Honolulu, February 1990.

State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 42, Vehicular Noise Control, September 1996.

State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 46, Community Noise Control, September 1996.

State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 54, Water Quality Standards, September 1996.

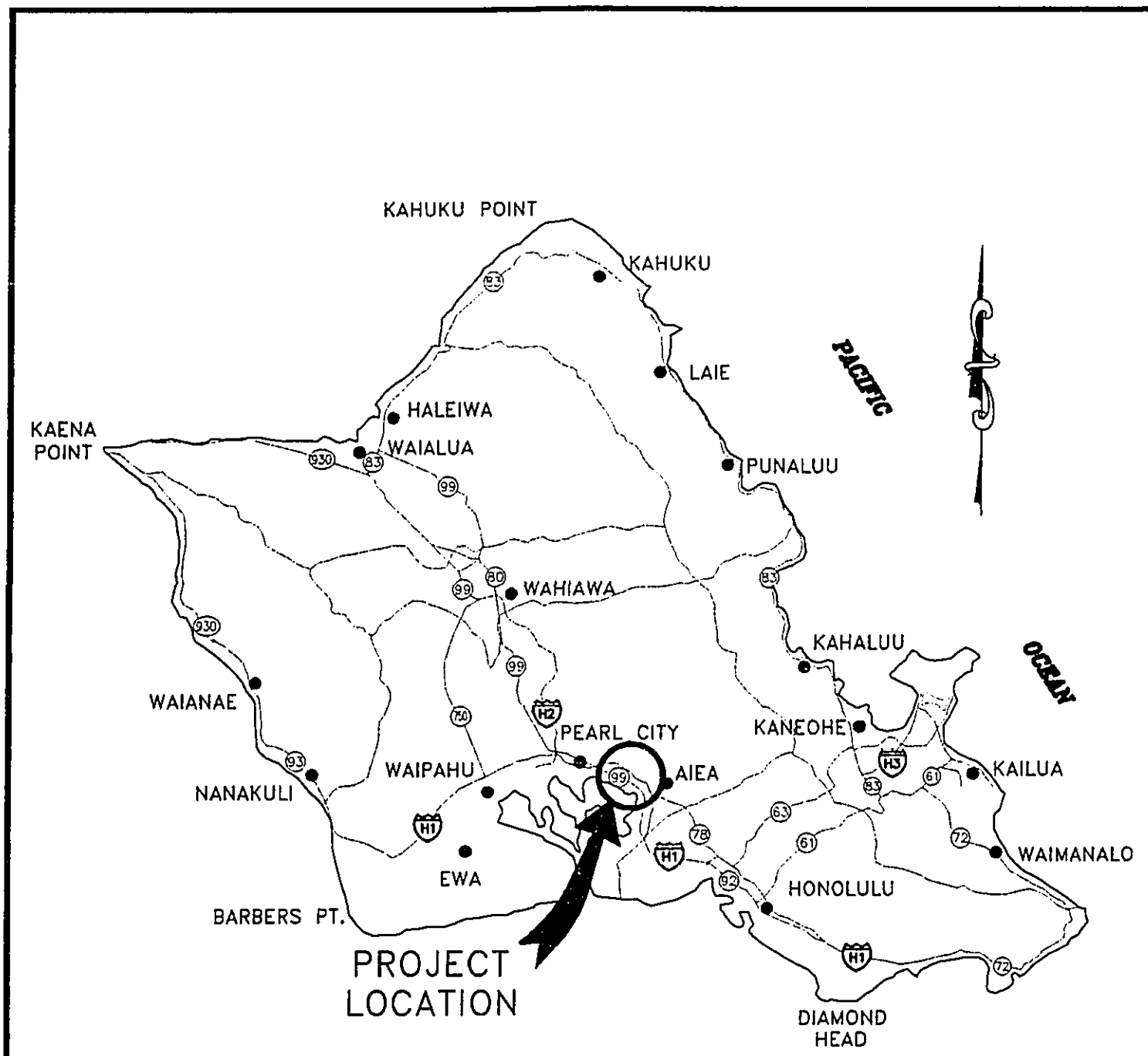
State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 55, Water Pollution Control, September 1996.

State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 59, Ambient Air Quality Standards, September 1996.

State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 60, Air Pollution Control, September 1996.

State of Hawaii, Department of Health, Hawaii Administrative Rules, Title 11, Chapter 200, Environmental Impact Statement Rules, September 1996.

State of Hawaii, Department of Health, Hazard Evaluation & Emergency Response, Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan (Draft Edition), February 1996.



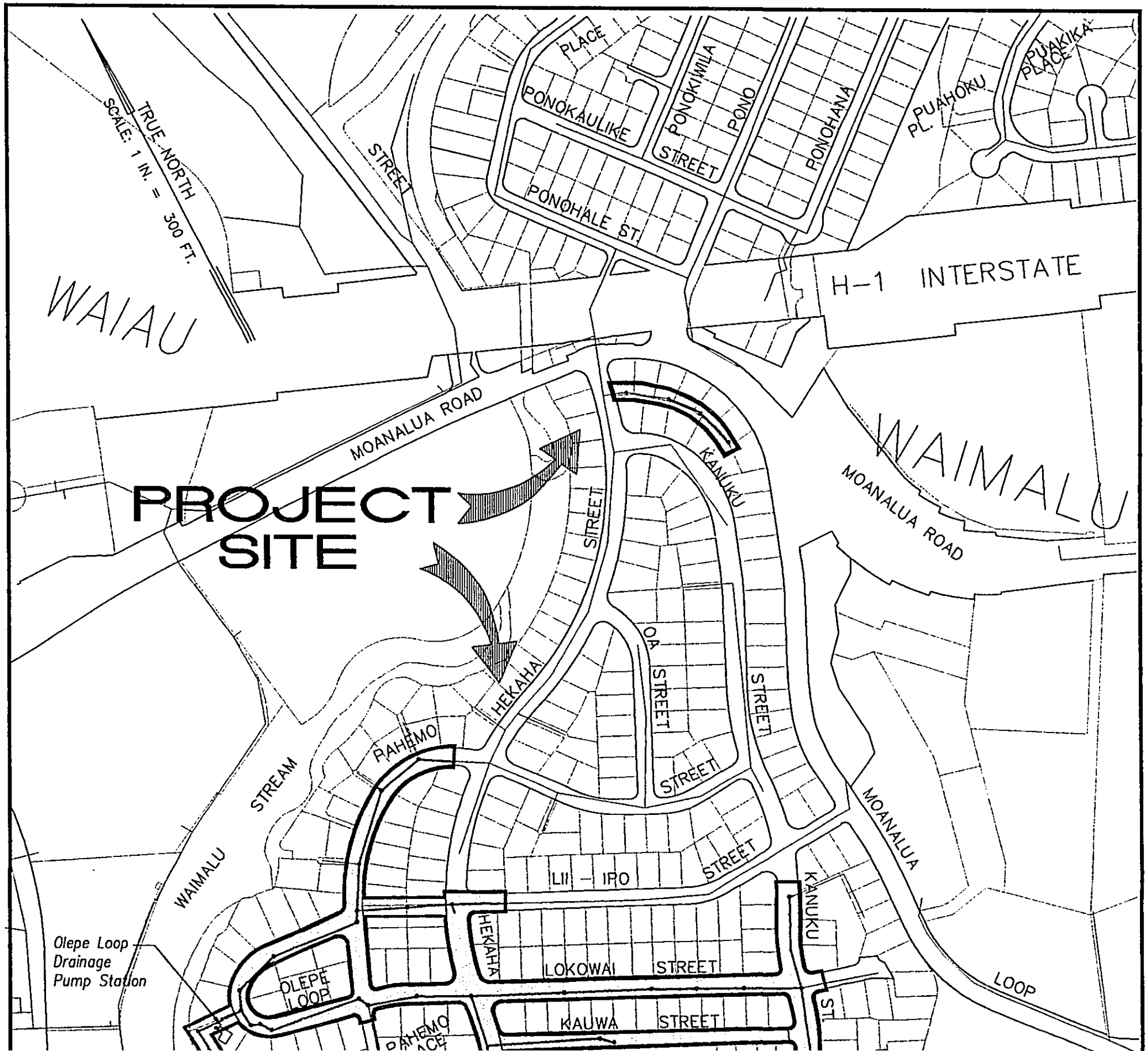
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

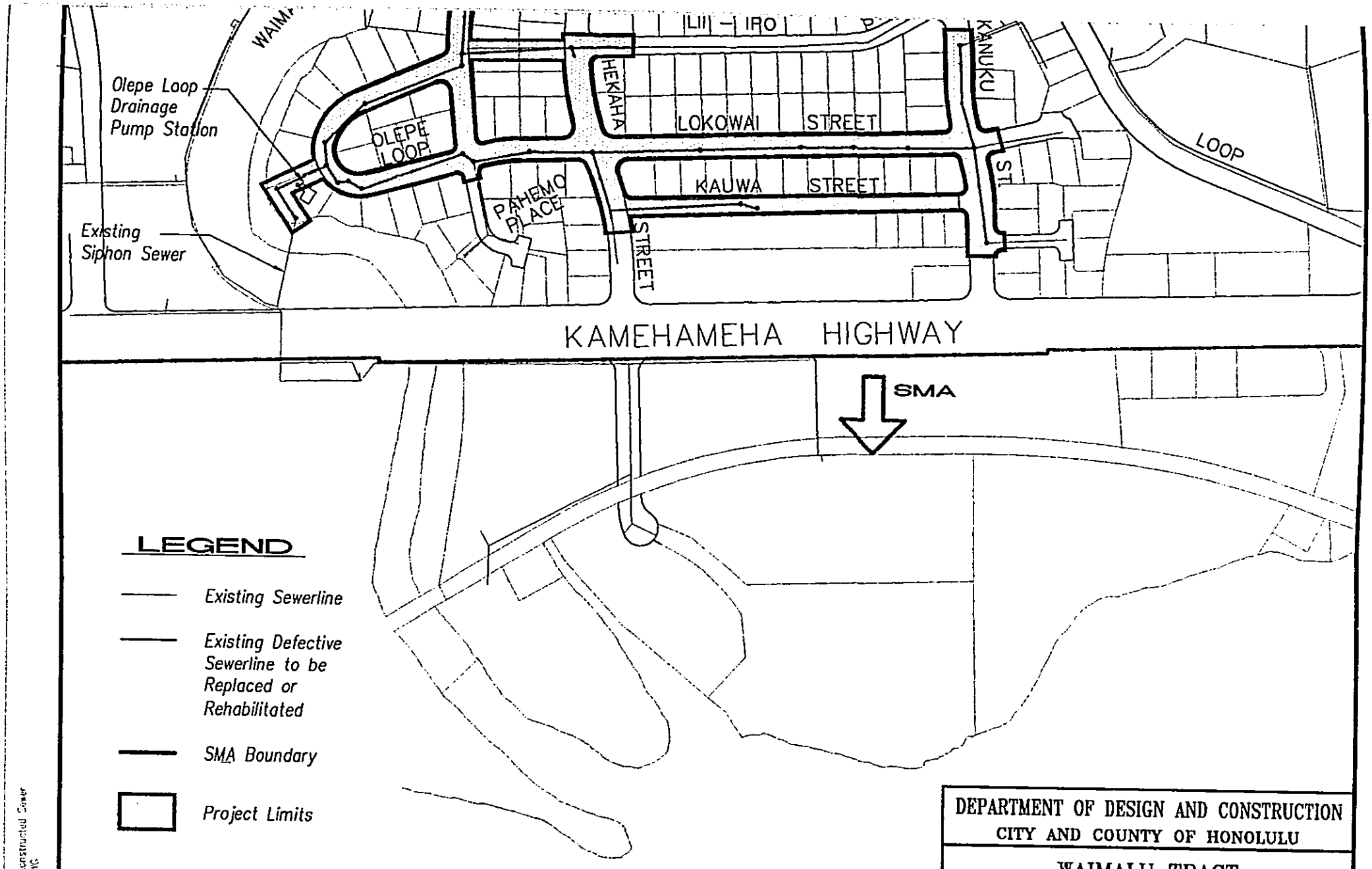
WAIMALU TRACT RECONSTRUCTED SEWER

Waimalu, Aiea, Oahu, Hawaii

VICINITY MAP
FIGURE 1

Not to Scale


TRUE NORTH
SCALE: 1 IN. = 300 FT.
WAIAU
PONOKAULIKE PLACE
PONOKIWILA STREET
PONO STREET
PONOHANA STREET
PUAHOKU PL.
PUAKIKA PLACE
PONOHALE ST.
H-1 INTERSTATE
WAIMALU
MOANALUA ROAD
PROJECT SITE
KANUKU STREET
HEKAHA STREET
OA STREET
STREET
RAHEMO STREET
STREAM
WAIMALU
LII - IRO STREET
MOANALUA LOOP
Olepe Loop Drainage Pump Station
OLEPE LOOP
LOKOWAI STREET
KAUWA STREET



PROJECT NAME: Waimalu Reconstructed Sewer
CAD DWG NO: 2575FG2EA.DWG
DATE: 11-9-98

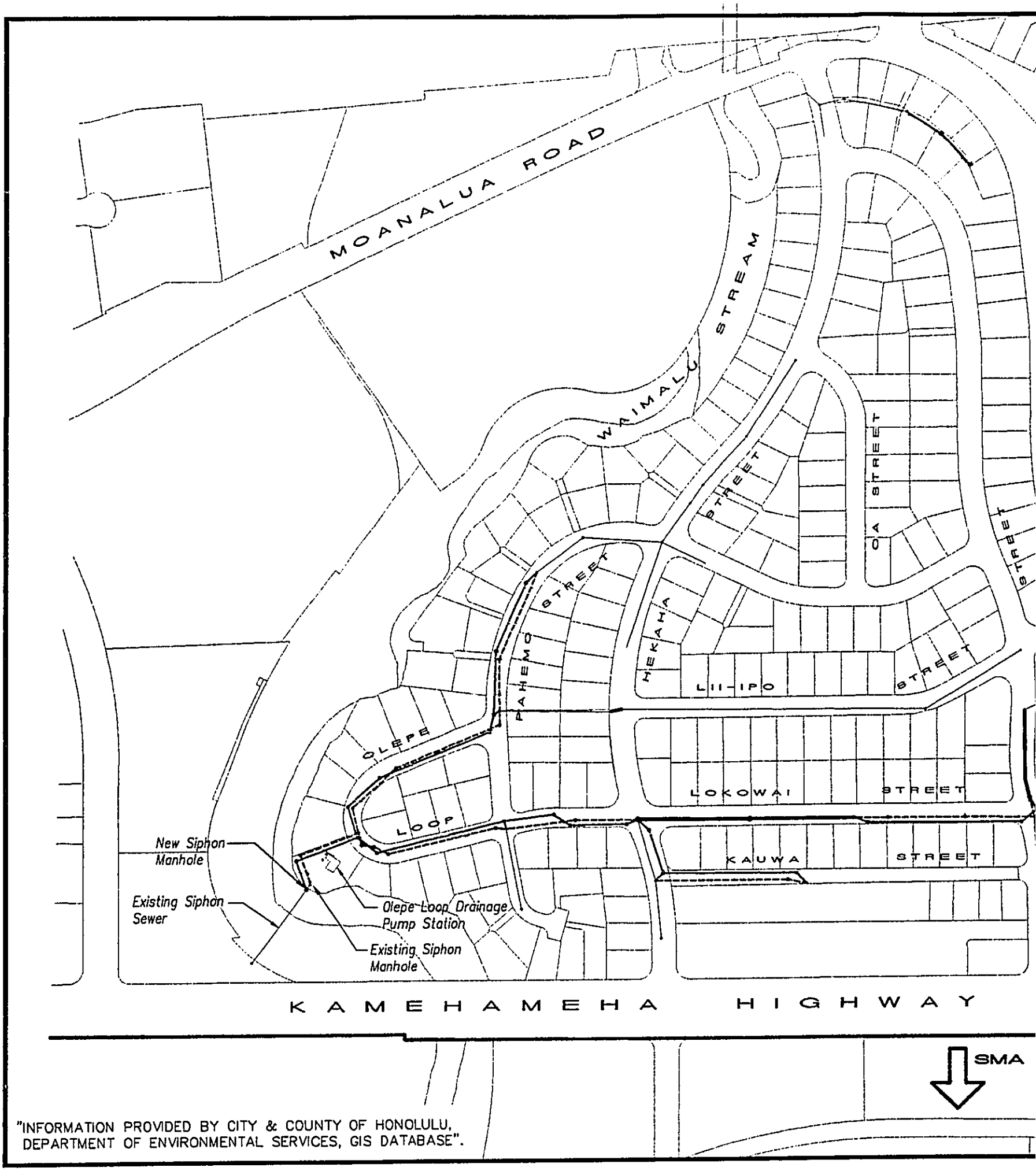
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

WAIMALU TRACT RECONSTRUCTED SEWER

Waimalu, Aiea, Oahu, Hawaii

PROJECT AREA FIGURE 2

Scale: 1" = 300'



"INFORMATION PROVIDED BY CITY & COUNTY OF HONOLULU, DEPARTMENT OF ENVIRONMENTAL SERVICES, GIS DATABASE".

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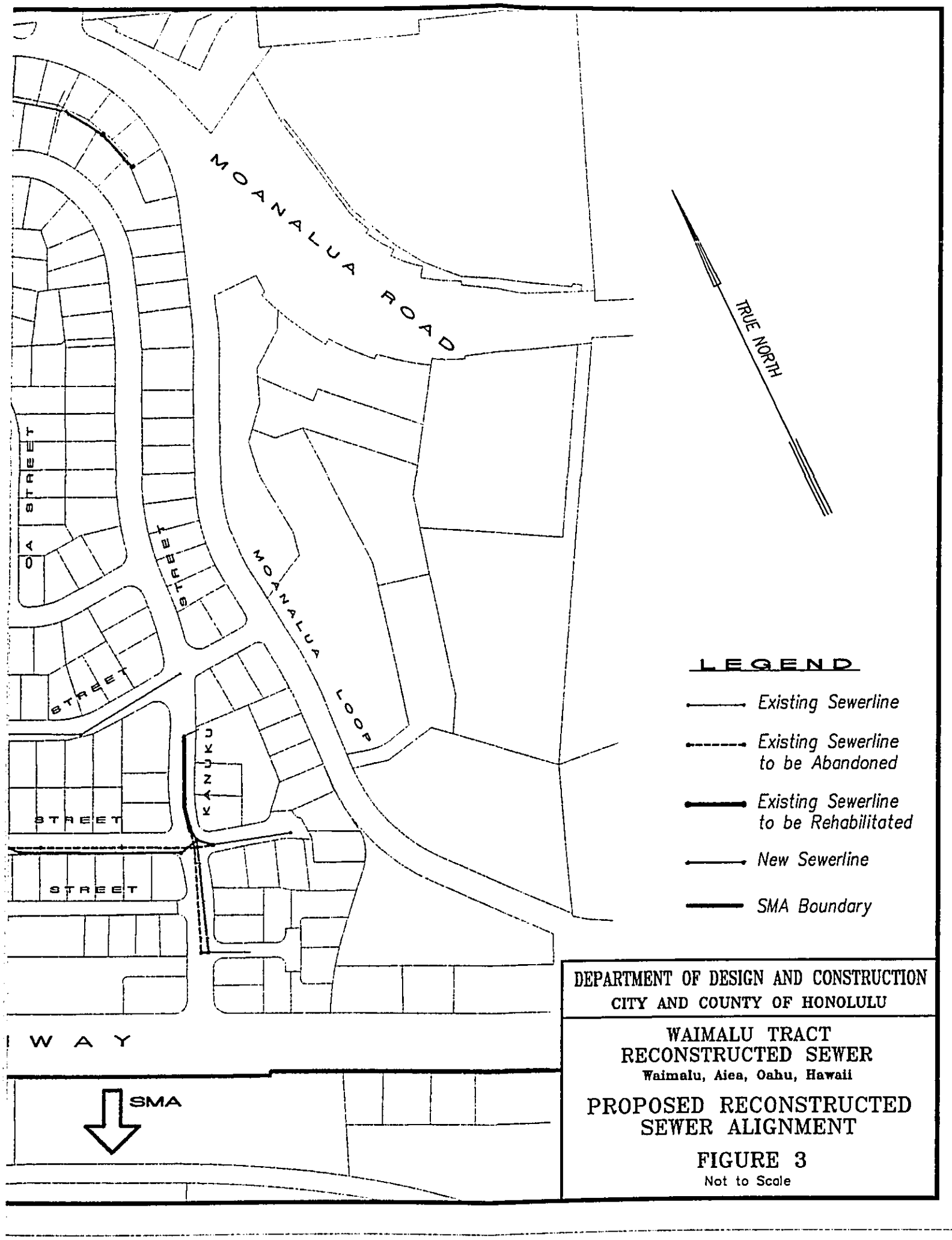
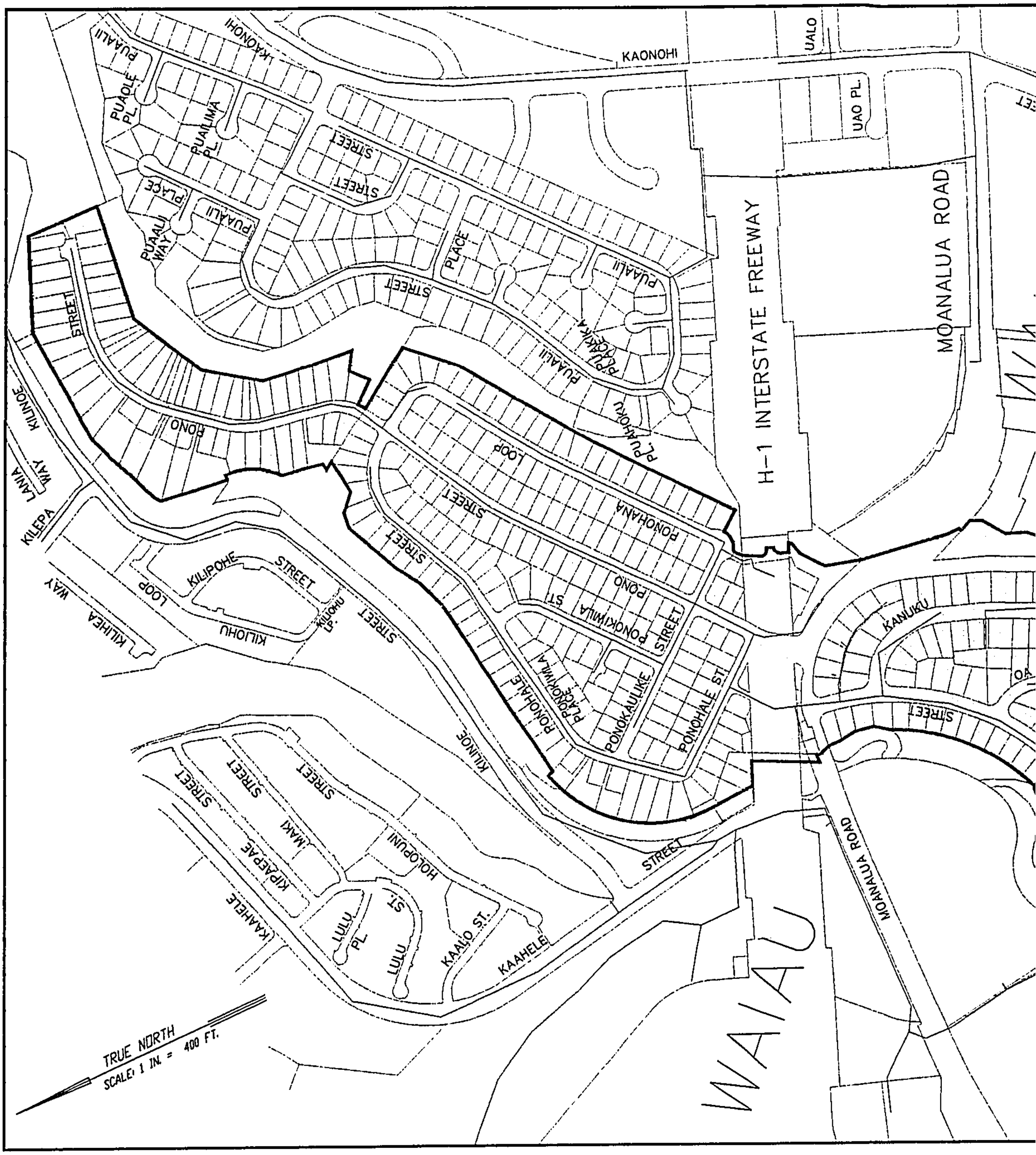
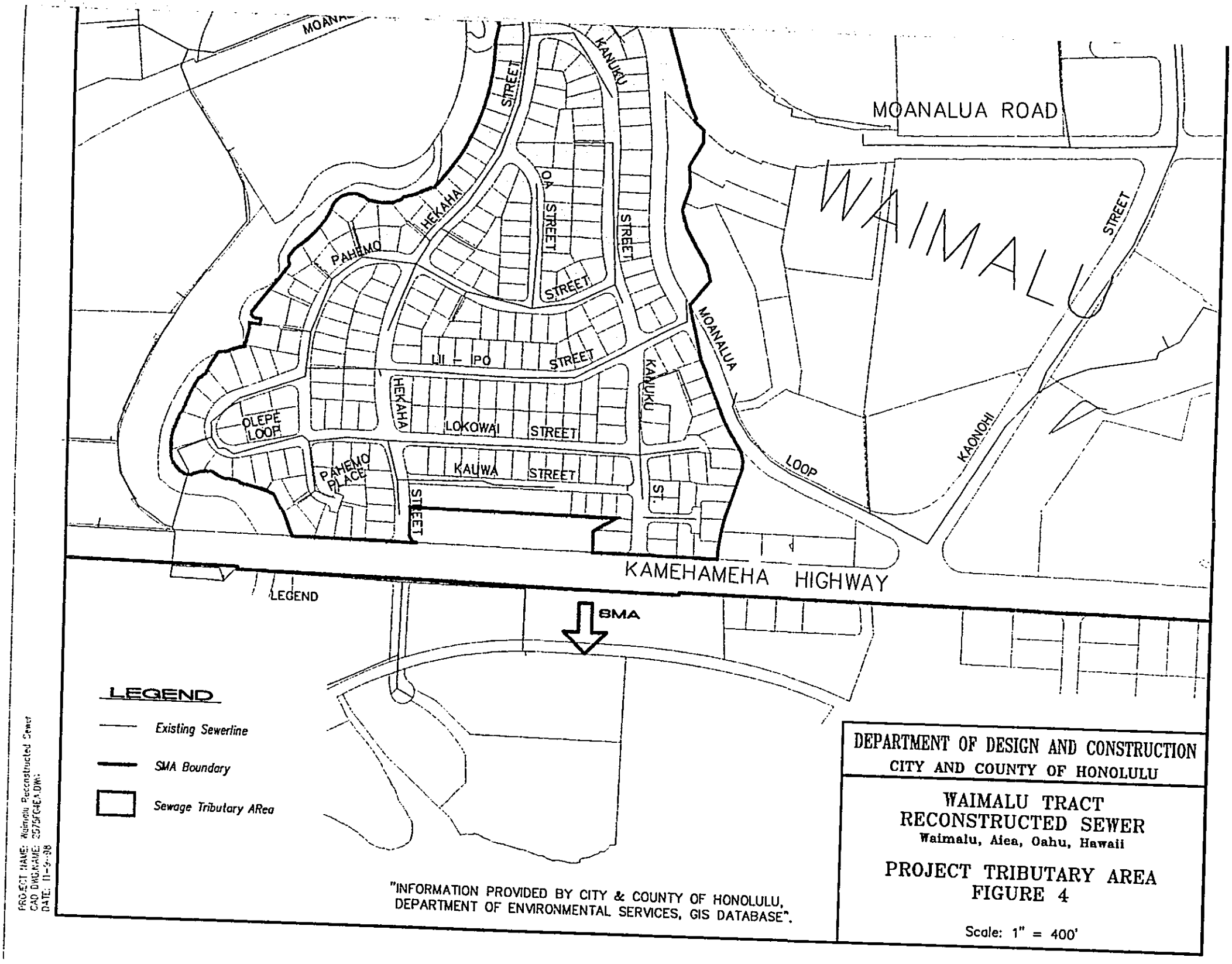
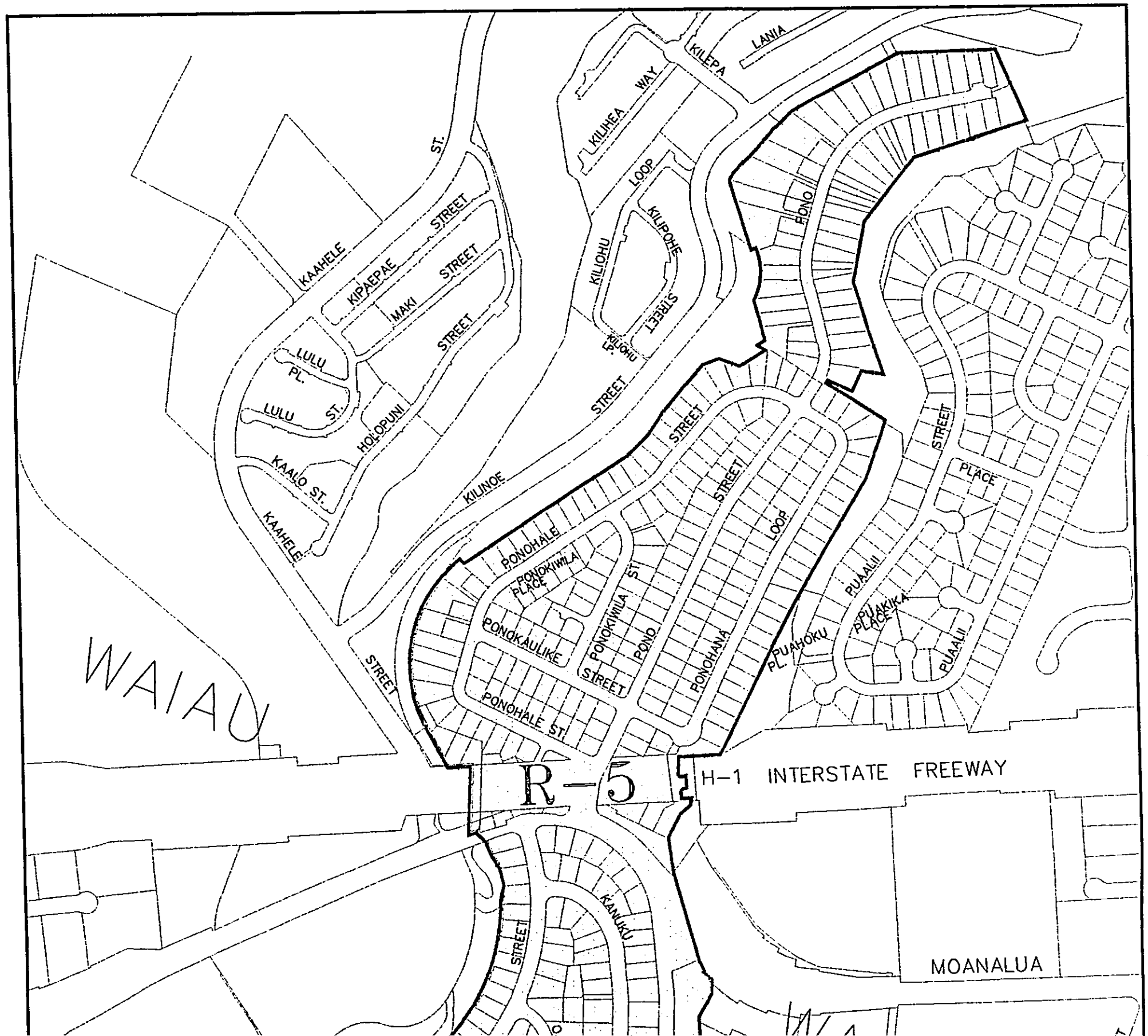
CAD DWG NO. 2575FGIEA
DATE: 11-9-98

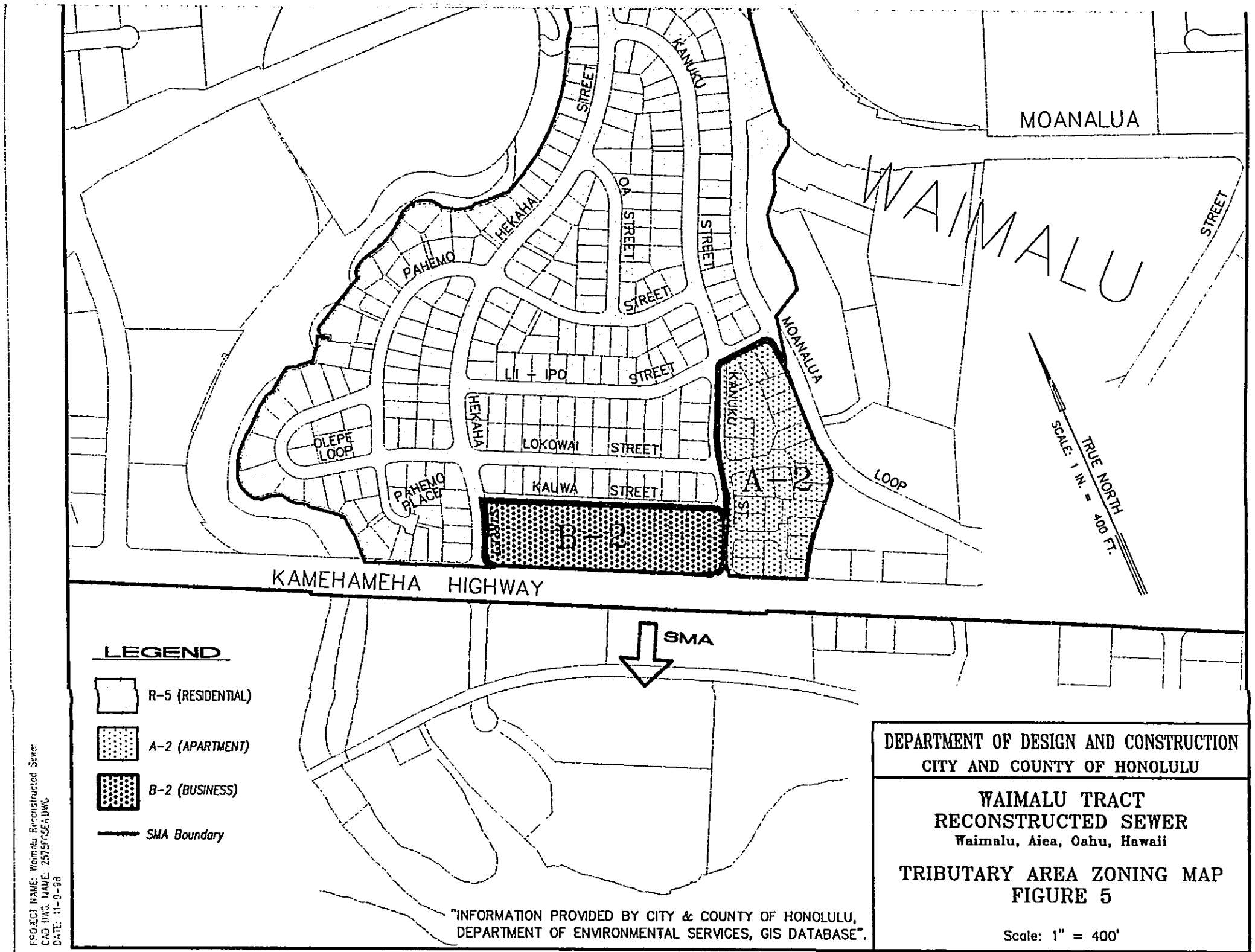

MOANALUA ROAD
TRUE NORTH
MOANALUA LOOP
STREET
STREET
STREET
STREET
STREET
W A Y
SMA
LEGEND
Existing Sewerline
Existing Sewerline to be Abandoned
Existing Sewerline to be Rehabilitated
New Sewerline
SMA Boundary
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
WAIMALU TRACT
RECONSTRUCTED SEWER
Waimalu, Aiea, Oahu, Hawaii
PROPOSED RECONSTRUCTED SEWER ALIGNMENT
FIGURE 3
Not to Scale



KAONOHI
UALO
UAO PL.
PUAALII
KAONOHI
PUAOLE PL.
PUAILIMA PL.
STREET
STREET
PLACE
PUAALII WAY
PUAALII
PLACE
STREET
PUAALII
PUAALII
PUAKIKA PLACE
PUAHOKU PL.
H-1 INTERSTATE FREEWAY
MOANALUA ROAD
STREET
PONO
LOOP
PONOHANA
STREET
STREET
PONO
PONOKIWILA ST
STREET
PONOKIWILA PLACE
PONOKAULIKE
PONOHALE ST.
PONOHALE
KANUKU
STREET
KILINOE
LANIA WAY
KILEPA
KILIPOHE STREET
LOOP
KILIOHU
KILIOHU LP.
KILIHEA WAY
STREET
KILINOE
STREET
STREET
STREET
STREET
MAKI
KIPAEPAE
HOLOPUNI
LULU PL
ST.
LULU
KAALO ST.
KAAHELE
KAAHELE
MOANALUA ROAD
WAIAU
TRUE NORTH
SCALE: 1 IN. = 400 FT.


MOANALUA ROAD
WAIMALU
KAMEHAMEHA HIGHWAY
MOANALUA
KANUKU
STREET
HEKAHA
PAHEMO
OA STREET
LII - PO STREET
LOKOWAI STREET
KAUWA STREET
OLEPE LOOP
PAHEMO PLACE
KAONOHI
LOOP
SMA
LEGEND
Existing Sewerline
SMA Boundary
Sewage Tributary ARea
"INFORMATION PROVIDED BY CITY & COUNTY OF HONOLULU, DEPARTMENT OF ENVIRONMENTAL SERVICES, GIS DATABASE".
PROJECT NAME: Waimalu Reconstructed Sewer
CAD DWG NAME: 2575FG4EA.DWG
DATE: 11-9-98
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
WAIMALU TRACT
RECONSTRUCTED SEWER
Waimalu, Aiea, Oahu, Hawaii
PROJECT TRIBUTARY AREA
FIGURE 4
Scale: 1" = 400'


KAAHELE ST.
KIPAEPAE STREET
MAKI STREET
STREET
LULU PL.
LULU ST.
HOLOPUNI
KAALO ST.
KAAHELE
KILINOE
KILIHEA WAY
KILEPA
LANIA
LOOP
KILIOHU
KILIPOHE STREET
KILIOHU
STREET
STREET
STREET
PONO
PLACE
PONOHALE
PONOKIWILA PLACE
PONOKIWILA ST
PONOKAULIKE
STREET
PONO
PONOHANA LOOP
PONOHALE ST
PUAHOKU PL.
PUAALII
PUAAKIKA PLACE
PUAALII
WAIAU
R-5
H-1 INTERSTATE FREEWAY
KANUKU
STREET
MOANALUA



PROJECT NAME: Waimalu Reconstructed Sewer
CAD DWG. NAME: 2575FIGSEA1.DWG
DATE: 11-9-98

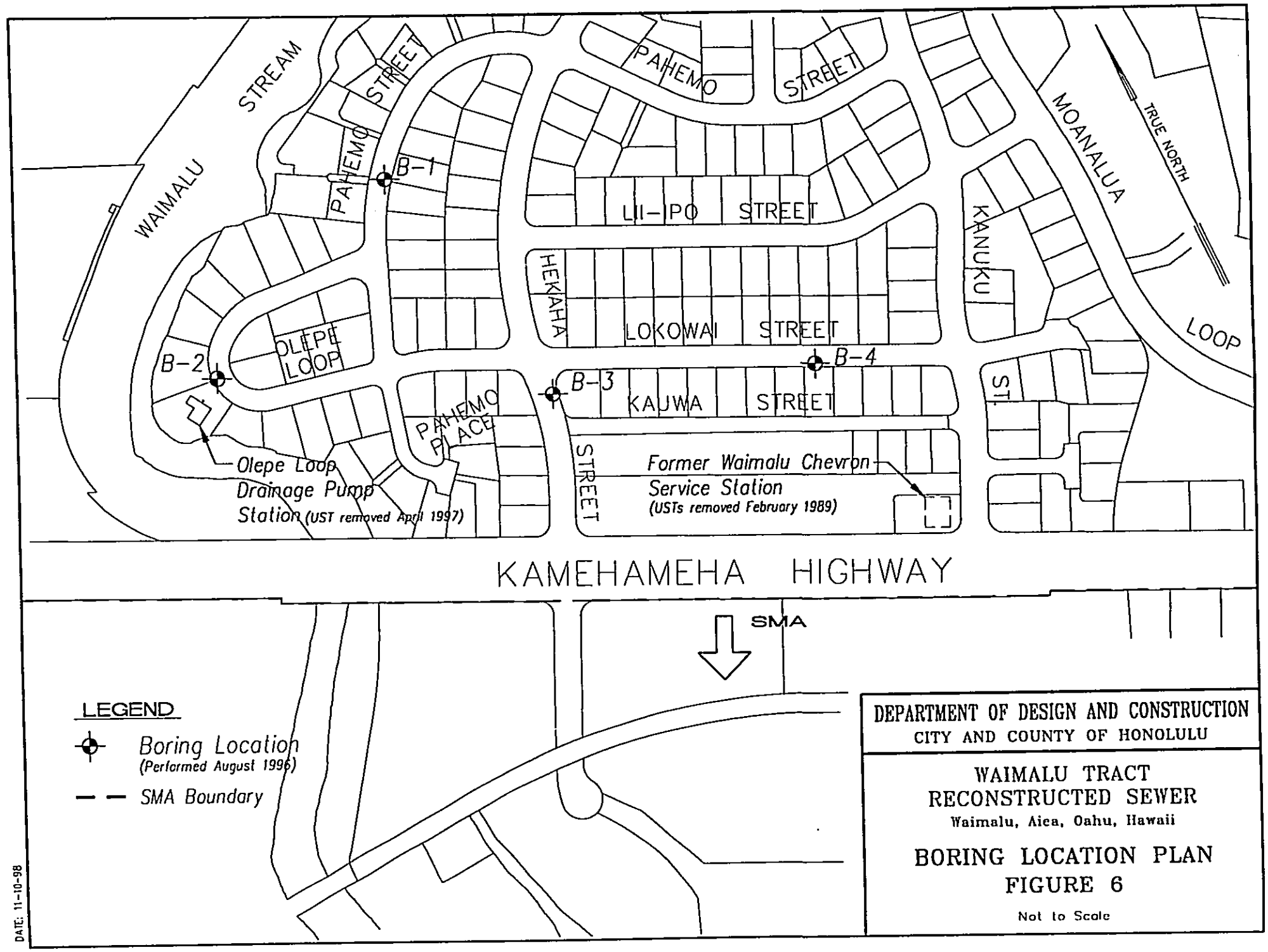
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

WAIMALU TRACT RECONSTRUCTED SEWER

Waimalu, Aiea, Oahu, Hawaii

TRIBUTARY AREA ZONING MAP FIGURE 5

Scale: 1" = 400'


STREAM
WAIMALU
PAHEMO
STREET
B-1
PAHEMO
STREET
LII-PO
STREET
MOANALUA
TRUE NORTH
KANUKU
HEKAHA
LOKOWAI
STREET
LOOP
B-2
OLEPE
LOOP
B-3
B-4
KAUWA
STREET
ST.
PAHEMO
PLACE
STREET
Olepe Loop
Drainage Pump
Station (UST removed April 1997)
Former Waimalu Chevron
Service Station
(USTs removed February 1989)
KAMEHAMEHA HIGHWAY
SMA
LEGEND
Boring Location
(Performed August 1996)
SMA Boundary
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
WAIMALU TRACT
RECONSTRUCTED SEWER
Waimalu, Aiea, Oahu, Hawaii
BORING LOCATION PLAN
FIGURE 6
Not to Scale
DATE: 11-10-98

APPENDIX A

DRAFT EA COMMENTS AND RESPONSES

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

REPLY TO ATTENTION OF

March 18, 1999

Civil Works Branch

Mr. Carl Arakaki
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Arakaki:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Waimalu Tract Reconstructed Sewer, Aiea, Oahu (TMKs 9-8-10, 22, 23, and 24). The following comments are provided in accordance with U.S. Army Corps of Engineers, Honolulu District authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit will not be required for the project.

b. The flood hazard information provided on page 6 of the DEA is correct.

Sincerely,

Paul Mizue, P.E.
Chief, Civil Works Branch

Copies Furnished:

Ms. Jan Naoe Sullivan
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Mr. David Bills
Gray, Hong, Bills and Associates
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-317

May 10, 1999

Mr. Paul Mizue, P.E., Chief
Civil Works Branch
U.S. Army Engineer District, Honolulu
Department of the Army
Fort Shafter, Hawaii 96858-5440

Dear Mr. Mizue:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated March 18, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

To summarize your comments, a Department of the Army (DA) permit will not be required for the project based on the information provided. The flood hazard information provided in the Environmental Assessment is correctly stated.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

for RANDALL K. FUJIKI
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

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

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

In reply, please refer to
EMO/WB

990300
09-08-10 ETC K9

April 9, 1999

Mr. Randall K. Fujiki
Director
Department of Design and Construction
City & County of Honolulu
650 South King Street 2nd Floor
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment (EA)
Waimalu Tract Reconstructed Sewer
Aiea, Oahu, Hawaii
TMK: (1) 9-8-10, 22, 23 & 24

Thank you for allowing us to review the Draft Environmental Assessment on the above project. We have the following comments to offer.

We concur with the proposal to reconstruct portions of the Waimalu Tract sewer system to provide replacement and rehabilitation of existing gravity sewers to prevent possible wastewater spills and overflows due to grease build up. We are always concerned with proper treatment and disposal of domestic wastewater, and thus appreciate the needs of the public being addressed.

Should you have any further questions, please contact Mr. Harold Yee of the Wastewater Branch at telephone 586-4294.

Sincerely,

Thomas E. Arizumi

THOMAS E. ARIZUMI, P.E.
Chief, Environmental Management Division

LK:erm

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-321

May 10, 1999

Mr. Thomas E. Arizumi, P.E., Chief
Environmental Management Division
State Department of Health
919 Ala Moana Boulevard
Honolulu, Hawaii 96814

Dear Mr. Arizumi:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated April 9, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P O BOX 3378
HONOLULU HAWAII 96801-3378

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

IN REPLY, PLEASE REFER TO
EMD/CWB

March 17, 1999

03044CJS.99

Mr. Randall K. Fujiki, AIA
Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 2nd Floor
Honolulu, HI 96813

Attention: Mr. Carl Arakaki

Dear Mr. Fujiki:

Subject: Waimalu Tract Reconstructed Sewer
Aiea, Oahu, Hawaii
TMK: (1)9-8-10, 22, 23 & 24

The Department of Health's Clean Water Branch (CWB) acknowledges receipt of the March 3, 1999 City and County of Honolulu, Department of Design and Construction letter (DCP 99-119) requesting review and comments on the subject project's Draft Environmental Assessment. The CWB has the following comments:

1. The applicant should contact the U.S. Army Corps of Engineers (COE) to identify whether a Federal permit (including a Department of Army (DA) permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act (CWA)"), a Section 401 Water Quality Certification (WQC) 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..."

2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each of the following activities which discharges into State waters:

   a. Discharge of hydrotesting water; and

   f. Discharge associated with construction activity dewatering.

3. The applicant may be required to apply for an Individual NPDES Permit if there is any type of process wastewater discharge from the project into State waters.

The application form(s) for those discharges which need to obtain a certification, coverage, and/or permit will be provided upon request.

If you have any questions, please call Ms. Joanna L. Seto, P.E., Engineering Section of the Clean Water Branch, at 586-4309.

Sincerely,

DENIS R. LAU, P.E., CHIEF
Clean Water Branch

JLS:cr

c: Alex Ho, Department of Environmental Services, City and County of Honolulu
Jan Naoe Sullivan, Department of Planning and Permitting, City anc County of Honolulu
David B. Bills, Gray, Hong, Bills & Associates, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-322

May 10, 1999

Mr. Denis Lau, P.E., Chief
Clean Water Branch
State Department of Health
919 Ala Moana Boulevard
Honolulu, Hawaii 96813

Dear Mr. Lau:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated March 17, 1999 regarding the subject project and are providing the following comments. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

1. The U.S. Army Corps of Engineers (COE) has reviewed and commented on the subject Environmental Assessment. The COE indicated that a Department of the Army (DA) permit will not be required based on the information provided. A Section 401 Water Quality Certification (WQC) is not anticipated for the subject project.

2. A National Pollutant Discharge Elimination System (NPDES) general permit will be obtained for the following activities prior to discharges into State waters:
   a. Discharge of hydrotesting water; and
   b. Discharge associated with construction activity dewatering.

3. An Individual NPDES Permit will be obtained if there is any type of process wastewater discharge from the project into State waters.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
PO BOX 3378
HONOLULU, HAWAII 96801

BRUCE S. ANDERSON, Ph.D.
[redacted]

IN REPLY, PLEASE REFER TO
EMD - CAB

April 21, 1999

99-193 CAB

Mr. Randall K. Fujiki
Director, Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Attention: Mr. Carl Arakaki

Dear Mr. Fujiki:

SUBJECT: Comments on the "Proposed Waimalu Tract Reconstruction Sewer Project," Aiea, Oahu, TMK: 9-8-10, 22 thru 24

A Draft Environmental Assessment was submitted to the Department of Health for the proposed Waimalu Tract Reconstruction Sewer Project. The project consists of the replacement and rehabilitation of existing gravity sewers that are cracked and experience adverse grade due to uneven soil consolidation.

Control of Fugitive Dust:

The proposed method of new sewer line installation is the conventional open trenching technique that includes excavation and backfill for the entire length of the pipeline. As a result, there is a significant potential for fugitive dust to be generated during all phases of construction for this project. The close proximity to neighboring residential and business establishments may exacerbate dust problems. Implementation of adequate dust control measures during all phases of the project is warranted. Construction activities must comply with provisions of Chapter 11-60.1, Hawaii Administrative Rules, section 11-60.1-33 on Fugitive Dust.

Contractor should provide adequate means to control dust from road areas and during the various phases of construction activities, including but not limited to:

a. planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact.

b. providing an adequate water source at site prior to start-up of construction activities;

c. controlling of dust from shoulders, project entrances, and access roads; and

d. providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.

If you have any questions regarding fugitive dust, please contact Mr. Timothy Carvalho of my staff at 586-4200.

Sincerely,

WILFRED K. NAGAMINE
Manager, Clean Air Branch

TC:sw

CERTIFIED MAIL - RETURN RECEIPT REQUESTED (#Z 452 231 780)

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-323

May 10, 1999

Mr. Wilfred K. Nagamine, Manager
Clean Air Branch
State Department of Health
919 Ala Moana Boulevard
Honolulu, Hawaii 96814

Dear Mr. Nagamine:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated April 21, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment. We concur with your concerns and have included them in the Final Environmental Assessment.

1. Construction activities will comply with the provisions of Chapter 11-60, Hawaii Administrative Rules section 11-60.1-33 on Fugitive Dust.

2. The contractor will provide adequate means to control dust from road areas and during the various phases of construction activities.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
PO BOX 3378
HONOLULU, HAWAII 96801

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

IN REPLY REFER TO:

DCP 99-119

March 23, 1999

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

SUBJECT: Waimalu Tract Reconstructed Sewer
Aiea, Oahu, Hawaii, TMK: (1)9-8-10, 22, 23 & 24
Draft Environmental Assessment (EA)

Chapter 11-43 "Community Noise Control" was incorrectly referenced on page 17 of the Draft Environmental Assessment. Chapter 11-43 was superseded by Chapter 11-46, Hawaii Administrative Rules, "Community Noise Control" on September 23, 1996.

1. Activities associated with the construction of the project must comply with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control."

   a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the maximum permissible sound levels of the regulations as stated in Section 11-46-6(a).

   b. Construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers as stated in Section 11-46-6(b)(1)(A).

   c. The contractor must comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit as stated in Section 11-46-7(d)(4).

Should there be any questions on this matter, please call Mr. Daryn Yamada, Supervisor, Noise Section at 586-4700.

Sincerely,

Jerry Y. Haruno
Environmental Health Program Manager
Noise, Radiation & Indoor Air Quality Branch

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-320

May 10, 1999

Mr. Jerry Y. Haruno
Environmental Health Program Manager
Noise, Radiation & Indoor Air Quality Branch
State Department of Health
919 Ala Moana Boulevard
Honolulu, Hawaii 96814

Dear Mr. Haruno:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated March 23, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

In response to your comments, we have revised the Final Environmental Assessment to correctly reference Chapter 11-46, Hawaii Administrative Rules, "Community Noise Control" which superseded Chapter 11-43 on September 23, 1996. Activities associated with the construction of the project will comply with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control." In addition, we have included the following comments into the Final Environmental Assessment:

a. The contractor will obtain a noise permit if the noise levels from the construction activities are expected to exceed the maximum permissible sound levels.

b. Construction equipment and on-site vehicles requiring exhausting gas or air will be equipped with mufflers.

c. The contractor will comply with the requirement pertaining to construction activities as specified in the rules and the conditions issued with the permit.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

RANDALL K. FUJIKI
for

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

APR 30 1999

Ref:PS:EH

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Atten: Mr. Carl Arakaki

Dear Mr. Fujiki:

Subject: Waimalu Tract Reconstructed Sewer
Draft Environmental Assessment (DEA)

We have reviewed the subject DEA and offer the following comment.

Engineering Branch:

Our current projects and programs are not affected by the proposed project.

We have no other comments to offer.

Thank you for the opportunity to review the subject DEA.

Should you have any questions, or require further assistance please contact staff planner Ed Henry at phone: 587-0380.

Very truly yours,

TIMOTHY E. JOHNS,
Chairperson

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-318

May 10, 1999

Mr. Timothy E. Johns, Chairperson
Board of Land & Natural Resources
State Department of Land & Natural Resources
1151 Punchbowl Street, Room 130
Honolulu, Hawaii 96813

Dear Mr. Johns:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated April 30, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
601 KAMOKILA BLVD, KAPOLEI, HI 96707

RECEIVED
'99 APR 21 A8:28
DEPT. OF LAND & NATURAL RESOURCES

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAMELA

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

April 14, 1999

LOG NO: 23221
DOC NO: 9904EJ01

Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 2nd Floor
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

SUBJECT: Chapter 6E-8 Historic Preservation Review -- Draft Environmental Assessment (DEA) Waimalu Tract Reconstructed Sewer
Waimalu, 'Ewa, O'ahu
TMK: 9-8-10, -22, 23, & 24

Thank you for the opportunity to review the DEA for the Waimalu Tract Reconstructed Sewer Project. The project proposes to replace and realign adverse grade sewer segments and rehabilitate existing cracked sewerlines using open trenching techniques. A review of our records shows that there are no known historic sites at the project location. Remediation will be conducted within existing sewer corridors, street right-of-ways and sewage easements where historic sites are highly unlikely to be found. Therefore, we believe that this project will have "no effect" on historic sites.

In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 587-0047.

This is our concurrence letter under Chapter 6E-8, Hawaii Revised Statutes.

If you have any questions please call Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ-jk

JEREMY HARRIS
MAYOR

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

May 10, 1999

DCP 99-319

Mr. Don Hibbard, Administrator
Historic Preservation Division
State Department of Land & Natural Resources
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Hibbard:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated April 14, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

To summarize your comments, your records show no known historic sites at the project location. The project construction will occur in right-of ways and easements where historic sites are unlikely to be found. If a historic site(s) is uncovered during the construction activities, the construction work will be stopped and the State Historic Preservation Division will be contacted.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

IN REPLY REFER TO:
HWY-PS
2.3573

May 10, 1999

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 2nd Floor
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment, Waimalu Tract Reconstructed Sewer
Aiea, Oahu, Hawaii, TMK: 9-8-10, 22, 23 & 24

Thank you for your letter of March 3, 1999, transmitting the above project document for our review and comments.

The proposed project will not adversely impact Kamehameha Highway.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-326

May 10, 1999

Mr. Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated May 3, 1999, regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR
ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-119

February 24, 1999

MEMORANDUM

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

FROM: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Ms. Jan Naoe Sullivan

and

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR
ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-311

May 10, 1999

MEMORANDUM

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

FROM: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated March 25, 1999 regarding the subject project. Your comments, as well as this response, will be incorporated into the Environmental Assessment.

In accordance with your comments, we are confirming that construction plans will be submitted to your department for review and approval. Board of Water Supply approved reduced pressure principle backfill prevention assemblies will be installed after all water meters, used during construction.

Should you have any questions, please contact Carl Arakaki at 523-4671.

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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-119

February 24, 1999

MEMORANDUM

TO: MR. ROSS S. SASAMURA, ACTING DIRECTOR
DEPARTMENT OF FACILITY MAINTENANCE

FROM: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Ms. Jan Naoe Sullivan

and

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-310

May 10, 1999

MEMORANDUM

TO: MR. ROSS S. SASAMURA, ACTING DIRECTOR
DEPARTMENT OF FACILITY MAINTENANCE

FROM: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated March 1, 1999 regarding the subject project. Your comments, as well as this response, will be incorporated into the Environmental Assessment.

In accordance with your comments, we have consulted with the Department of Design and Construction in regards to complaints filed in the project area. We found that the complaints centered around drainage problems. The scope of this project is limited to improving the existing sewer system and cannot address drainage problems.

Should you have any questions, please contact Carl Arakaki at 523-4671.

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

DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-119

February 24, 1999

MEMORANDUM

TO: DR. KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Ms. Jan Naoe Sullivan

and

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

DEPARTMENT OF DESIGN AND CONSTRUCTION

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-314

May 10, 1999

MEMORANDUM

TO: DR. KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated March 9, 1999 regarding the subject project. Your comments, as well as this response, will be incorporated into the Environmental Assessment. We concur with your concerns and have included the following in the Final Environmental Assessment.

1. The contractor will employ the best management practices (BMPs) during construction to reduce and control discharge of pollutants.

2. The contractor will obtain a stormwater NPDES permit for construction dewatering from the State Department of Health and the City Department of Planning and Permitting if trench dewatering activity is anticipated.

Should you have any questions, please contact Carl Arakaki at 523-4671.

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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

February 24, 1999

DCP 99-119

MEMORANDUM

TO: MS. JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

DEPARTMENT OF DESIGN AND CONSTRUCTION
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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

May 10, 1999

DCP 99-313

MEMORANDUM

TO: MS. JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated March 25, 1999 regarding the subject project. Your comments, as well as this response, will be incorporated into the Environmental Assessment.

Should you have any questions, please contact Carl Arakaki at 523-4671.

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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4587

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

February 24, 1999

DCP 99-119

MEMORANDUM

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

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Ms. Jan Naoe Sullivan

and

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
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PHONE: (808) 523-4564 • FAX: (808) 523-4587

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

May 10, 1999

DCP 99-312

MEMORANDUM

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

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated April 22, 1999 regarding the subject project. Your comments, as well as this response, will be incorporated into the Environmental Assessment.

In accordance with your comments, we have revised the report to include that roadway closures may be required. In the event that roadway closures are necessary, the following actions will be taken:

a. Publish a "Notice to Motorists" in the daily newspaper;
b. Inform area residents, businesses and neighborhood board of the proposed work;
c. Inform emergency personnel of roadwork; and
d. Provide the Department of Transportation Services (DTS) with information regarding the construction activities and scheduling.

Should you have any questions, please contact Carl Arakaki at 523-4671.

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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-119

February 24, 1999

MEMORANDUM

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

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Ms. Jan Naoe Sullivan

and

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

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CITY AND COUNTY OF HONOLULU
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HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-309

May 10, 1999

MEMORANDUM

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

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated March 5, 1999 regarding the subject project. Your review, as well as this response, will be incorporated into the Environmental Assessment.

Should you have any questions, please contact Carl Arakaki at 523-4671.

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

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
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PHONE: (808) 523-4584 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-119

February 24, 1999

MEMORANDUM

TO: MR. LEE D. DONOHUE, CHIEF
HONOLULU POLICE DEPARTMENT

FROM: for RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
AIEA, OAHU, HAWAII, TMK: (1) 9-8-10, 22, 23 & 24
DRAFT ENVIRONMENTAL ASSESSMENT (EA)

The City and County of Honolulu's Department of Design and Construction (DDC) is proposing to reconstruct portions of the Waimalu Tract sewer system. Enclosed for your review and comments is the Draft Environmental Assessment (EA) for the Waimalu Tract Reconstructed Sewer project. The Final EA will incorporate all comments with responses received during the public review period. Please send original comments to:

Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Mr. Carl Arakaki

Please send copies of the comments to the following:

Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
ATTENTION: Ms. Jan Naoe Sullivan

and

Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
ATTENTION: Mr. David B. Bills

Enclosure

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4584 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-308

May 10, 1999

MEMORANDUM

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

FROM: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: WAIMALU TRACT RECONSTRUCTED SEWER
ENVIRONMENTAL ASSESSMENT
TMK: 9-8-10, 22, 23 AND 24

We thank you for your memorandum dated March 29, 1999 regarding the subject project. Your comments, as well as this response, will be incorporated into the Environmental Assessment. We concur with your concerns that during construction police services will be impacted because of construction-related environmental impacts. After completion of the project, we do not anticipate further impact on the police services in the area. Should you have any questions, please contact Carl Arakaki at 523-4671.

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

GTE Hawaiian Tel

Beyond the call

GTE Hawaiian Telephone Company Incorporated
P.O. Box 2200 • Honolulu, HI 96841 • (808) 546-4511

March 17, 1999

HIABY3
Honolulu, HI

Mr. Carl Arakaki
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Arakaki:

Subject: WAIMALU TRACT RECONSTRUCTED SEWER
DRAFT ENVIROMENTAL ASSESSMENT

Thank you for the opportunity of review and comment on the proposed Draft Environmental Assessment for the Waimalu Tract Reconstructed Sewer Project. GTE Hawaiian Tel does not have underground facilities within the area of the proposed project. Our facilities are aerial and are used to serve the residents in the immediate area. We do not foresee any adverse affects to our network as a result of this project. However, caution should be exercised whenever excavation is performed in or around the poles that support our cables to assure that they are properly supported at all times.

If you should have any questions on this matter, please call me at 840-5858.

Very truly yours,

Mark K. Taosaka
Section Manager - Access Design & Construction

MKT/9903172

c: D. Osato – HIABY3
Ms. J. N. Sullivan – City
Mr. D. B. Bills – Gray, Hong, Bills & Asso.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4564 • FAX: (808) 523-4567

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-316

May 10, 1999

Mr. Mark K. Taosaka, Section Manager
Access Design & Construction
GTE Hawaiian Telephone Company, Inc.
P.O. Box 220
Honolulu, Hawaii 96841

Dear Mr. Taosaka:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated March 17, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment.

In response to your comments, we understand that Hawaiian Telephone has aerial facilities within the project area. Caution will be exercised when excavation activities are performed in or around the poles that support your cables to assure that the poles are properly supported at all times.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

for RANDALL K. FUJIKI
Director

THE GAS COMPANY

April 21, 1999

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

Attention: Mr. Carl Arakaki

Gentlemen:

Subject: Draft Environmental Assessment
Waimalu Tract Reconstructed Sewer

Please be advised that The Gas Company maintains underground utility gas mains in the project vicinity, which serves commercial and residential customers in the area and is interconnected with the utility network in Aiea. We would appreciate your consideration during the project planning and design process to minimize any potential conflicts with the existing gas facilities in the project area.

Thank you for the opportunity to comment on the Draft Environmental Assessment. Should there be any questions, or if additional information is desired, please call me at 594-5574.

Very truly yours,

Keith K. Yamamoto
Supervisor, Engineering

KKY:krs
99-107

cc: Ms. Jan Naoe Sullivan, Department of Planning and Permitting
Mr. David B. Bills, Gray, Hong, Bills and Associates, Inc.

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 2ND FLOOR
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JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

DCP 99-315

May 10, 1999

Mr. Keith K. Yamamoto
The Gas Company, Inc.
515 Kamakee Street
Honolulu, Hawaii 96814

Dear Mr. Yamamoto:

SUBJECT: Waimalu Tract Reconstructed Sewer
Environmental Assessment
TMK: 9-8-10, 22, 23 & 24

We thank you for your letter dated April 21, 1999 regarding the subject project. Your comment letter, as well as this response will be incorporated into the Environmental Assessment. In concurrence with your comments, we will work with your office during the project design phase to minimize potential conflicts with existing gas facilities in the area.

If you have any questions, please contact Carl Arakaki at 523-4671.

Very truly yours,

For RANDALL K. FUJIKI
Director

APPENDIX B

WRRC AQUIFER CLASSIFCATION MAP
Waipahu, Oahu, Hawaii

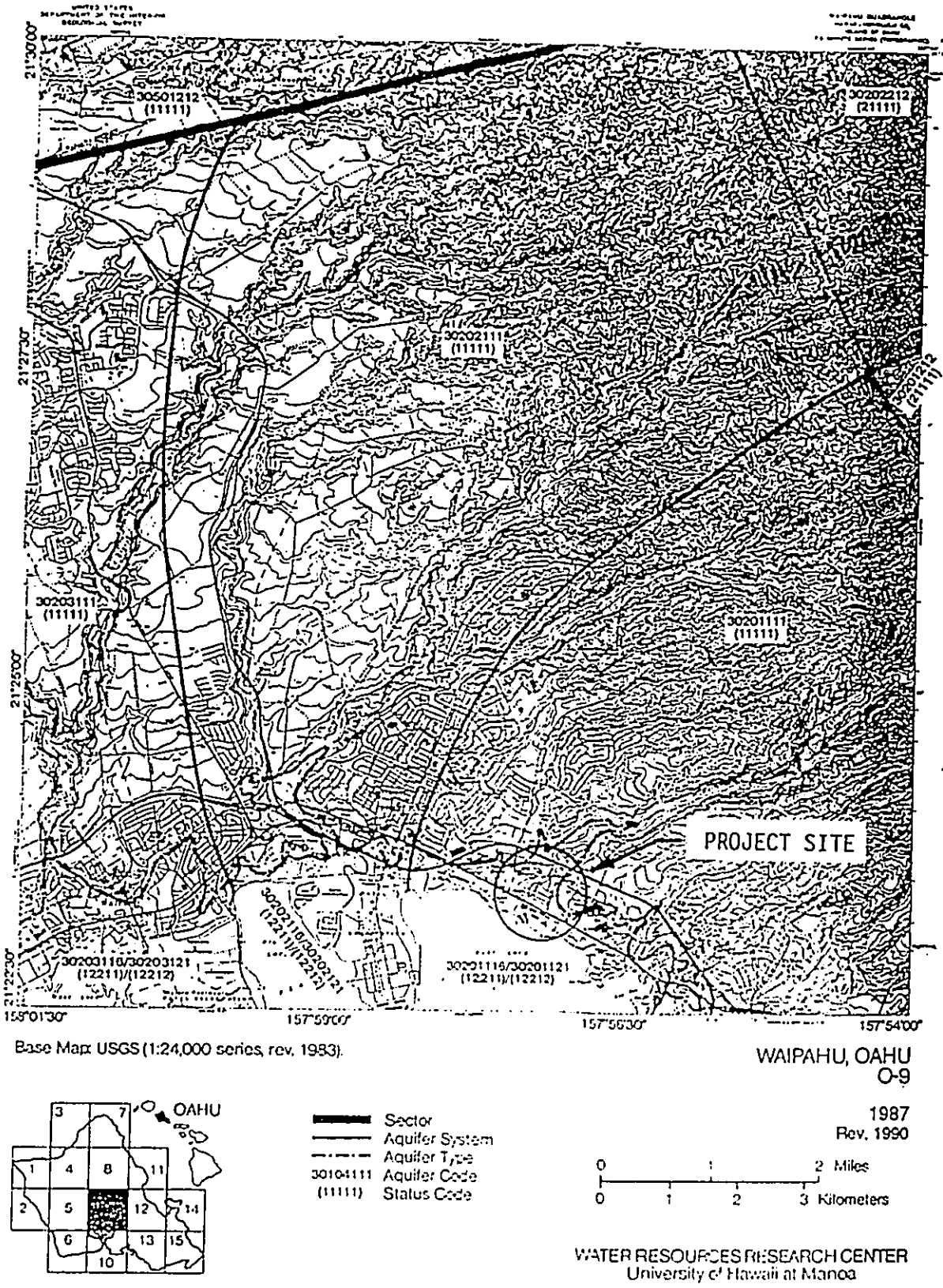

Figure 1.9. Aquifer classification map, Waipahu, O'ahu, Hawai'i

AQUIFER CLASSIFICATION EXPLANATION

AQUIFER AND STATUS CODES*

Aquifer Code = Island + Aquifer Sector + Aquifer System + Aquifer Type

Thus, 30104111 = Aquifer Code
where 3 = Oahu
01 = Honolulu
04 = Moanalua
1 = basal
1 = unconfined
1 = flank

and (11111) = Status Code
where 1 = currently used
1 = drinking
1 = fresh, <250 mg/l Cl^-
1 = irreplaceable
1 = high vulnerability to contamination

IS.	AQUIFER SECTOR	AQUIFER SYSTEM
3	01 Honolulu	01 Palolo
		02 Nuuanu
		03 Kalihi
		04 Moanalua
		05 Waialae
	02 Pearl Harbor	01 Waimalu
		02 Waiawa
		03 Waipahu
		04 Ewa
		05 Kunia
	03 Waianae	01 Nanakuli
		02 Lualualei
		03 Waianae
		04 Makaha
		05 Keaau
	04 North	01 Mokuleia
		02 Waialua
		03 Kawailoa
	05 Central	01 Wahiawa
		02 Koolau
	06 Windward	01 Koolauloa
		02 Kahana
		03 Koolaupoko
		04 Waimanalo

—Where sedimentary caprock aquifers rest on primary basalt aquifers, two Aquifer and Status Codes separated by a slash indicate numerator code is upper aquifer and denominator is lower aquifer.

AQUIFER TYPE:	Hydrology†	
1	Basal	Fresh water in contact with seawater
2	High Level	Fresh water not in contact with seawater
1	Unconfined	Where water table is upper surface of saturated aquifer
2	Confined	Aquifer bounded by impermeable or poorly permeable formations, and top of saturated aquifer is below groundwater surface
3	Confined or Unconfined	Where actual condition is uncertain

AQUIFER TYPE:	Geology‡	
1	Flank	Horizontally extensive lavas
2	Dike	Aquifers in dike compartments
3	Flank/Dike	Indistinguishable
4	Perched	Aquifer on an impermeable layer
5	Dike/Perched	Indistinguishable
6	Sedimentary	Nonvolcanic lithology

†1st two digits from hydrologic descriptors (pts. 1, 2).
‡Last digit from geologic descriptor.

STATUS CODE (GROUNDWATER)

Development Stage
1 Currently used
2 Potential use
3 No potential use

Utility
1 Drinking
2 Ecologically important
3 Neither

Salinity (mg/l Cl^-)
1 Fresh (<250)
2 Low (250-1000)
3 Moderate (1000-5000)
4 High (5000-15,000)
5 Seawater (>15,000)

Uniqueness
1 Irreplaceable
2 Replaceable

Vulnerability to Contamination
1 High
2 Moderate
3 Low
4 None

Rev. Feb. 1990