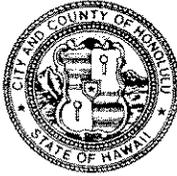


DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
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AUG - 8 2007

MUFI HANNEMANN
MAYOR



EUGENE C. LEE, P.E.
DIRECTOR

CRAIG I. NISHIMURA, P.E.
DEPUTY DIRECTOR

WW.P 07-0158

July 13, 2007

INFO. QUALITY CONTROL

07 JUL 16 P2:09

RECEIVED

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

Dear Ms. Salmonson:

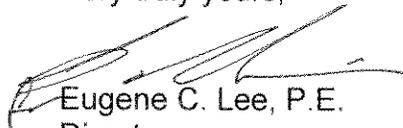
Subject: Finding of No Significant Impact (FONSI) for Kaneohe Bay Drive Trunk
Sewer Reconstruction, Kaneohe, Oahu
TMK: 4-4-013, 4-4-014, 4-4-016 and 4-4-037

The City and County of Honolulu (CCH), Department of Design and Construction (DDC), has reviewed and responded to the comments received during the 30-day public comment period which began on May 8, 2007 and ended on June 7, 2007.

The CCH, DDC, has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the next available Environmental Notice.

Enclosed are four copies of the final EA, a completed OEQC publication form, and the project description summary. Please call our project manager, Carl Arakaki, at 768-8738, or the consultant project engineer, Thomas Tamanaha, at 944-1821, if you have any questions.

Very truly yours,


Eugene C. Lee, P.E.
Director

Enclosure

**FINAL
ENVIRONMENTAL ASSESSMENT**

**KANEOHE BAY DRIVE
TRUNK SEWER RECONSTRUCTION**

CONTRACT NO. F86702 (A)

Prepared For:

**Department Of Design And Construction
City And County Of Honolulu
Honolulu, Hawaii**

Prepared by:

**Fukunaga and Associates, Inc.
Consulting Engineers**

**1388 Kapiolani Boulevard, Second Floor
Honolulu, Hawaii 96814**

July 2007

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I. INTRODUCTION

A. DESCRIPTION

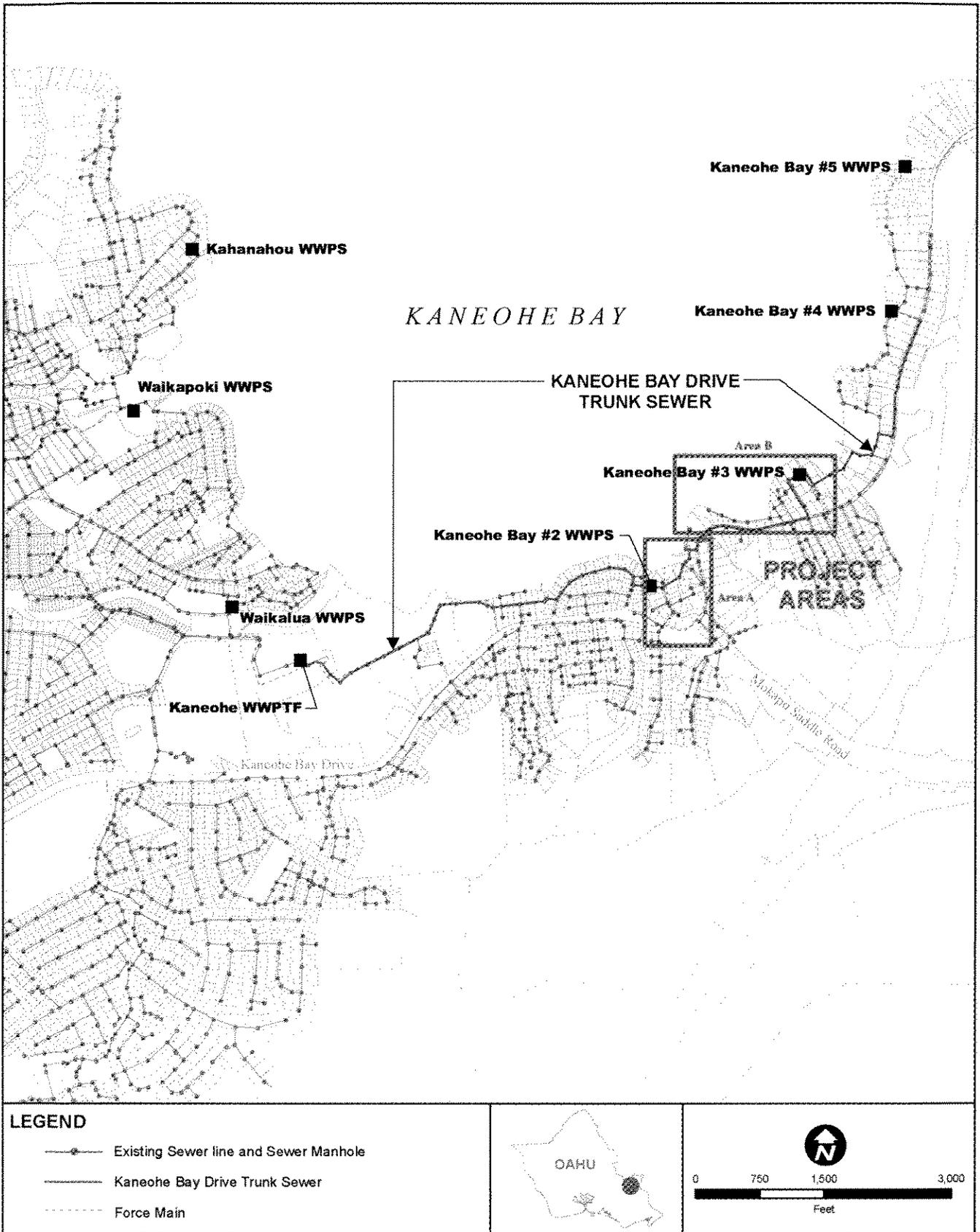
The Kaneohe Bay Drive Trunk Sewer Reconstruction project includes two areas, designated as Area A and Area B. The work in Area A includes the relocation and rehabilitation of a portion of the Kaneohe Bay Trunk Sewer and the reconstruction or rehabilitation of defective branch collector sewer lines. The Kaneohe Bay Drive Trunk Sewer line is located between the Kaneohe Bay #2 Wastewater Pump Station (WWPS) and the Kaneohe Bay #3 WWPS force main discharge manhole. The work in Area B involves the rehabilitation of defective sewer lines that are located close to and tributary to the Kaneohe Bay #3 Wastewater Pump Station.

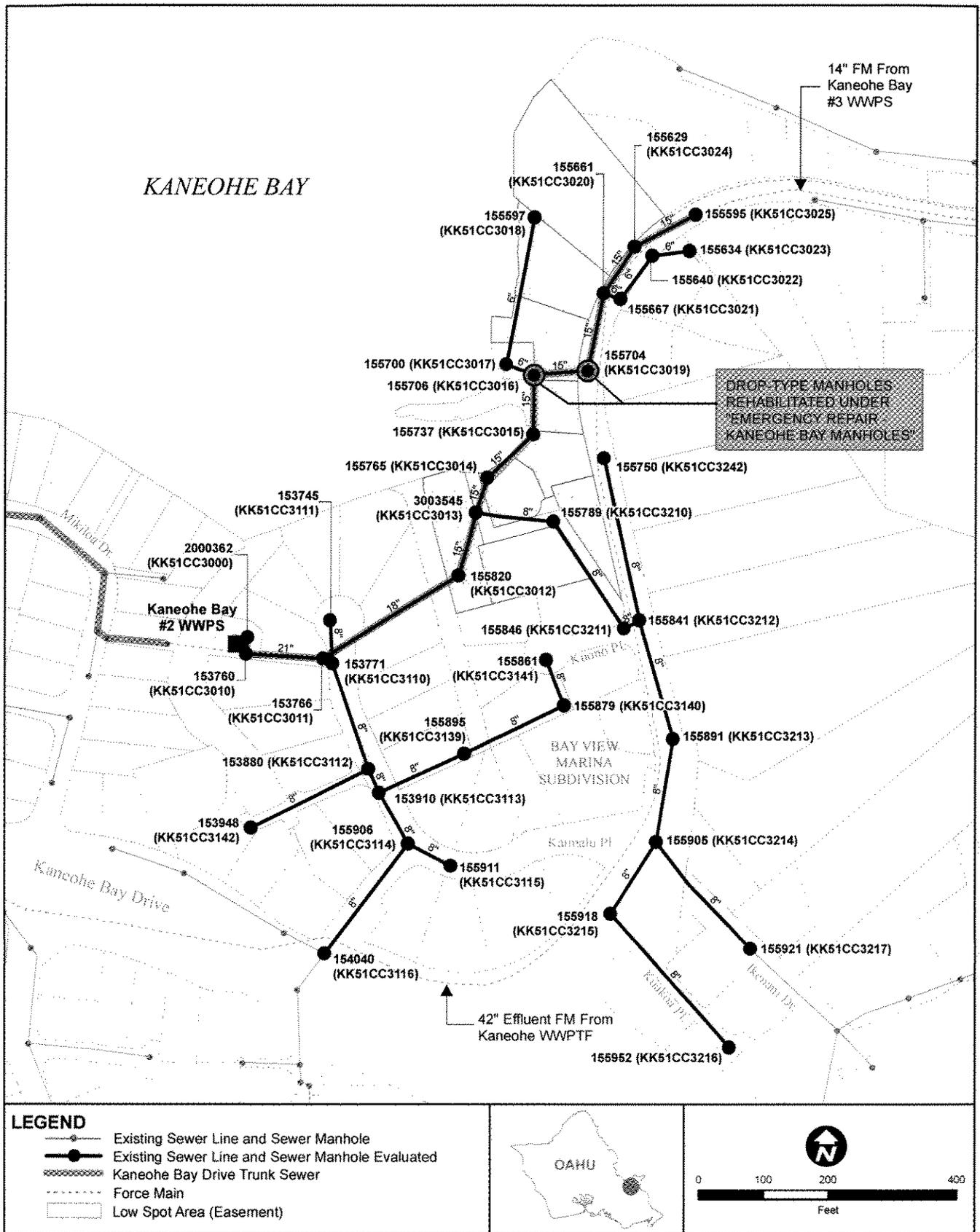
Both project areas are located north of the Kaneohe Bay Drive-Mokapu Saddle Road intersection. The locations of the project sites are shown on **Figure I-1**. The existing sewer systems in Area A and Area B are shown on **Figure I-2** and **Figure I-3**, respectively.

B. NEED FOR THIS PROJECT

An engineering study of the Kaneohe Bay Drive Trunk Sewer Reconstruction project was conducted to assess the hydraulic, structural, and operations & maintenance conditions of the existing sewers located within Areas A and B. The structural condition assessments were based on field inspections that revealed a number of severely damaged manholes as well as some severely corroded pipes within the trunk sewer system. The inspections also revealed pipe structural defects, pipe sags, joint leaks, and defective manholes within the collector sewers. The hydraulic, structural and operational conditions of the inspected sewers were evaluated and the sewer system condition deficiencies were identified. The assessments of the deficiencies of the existing trunk sewer and collector sewers are described in Section II. Sewer System Evaluation and Alternatives Considered. Alternative corrective measures to address sewer system deficiencies were considered, compared, and evaluated. The selected corrective measures were then developed and incorporated into this proposed project.

This draft environmental assessment was prepared in conjunction with the engineering studies for the proposed project (Kaneohe Bay Drive Trunk Sewer Reconstruction Design Alternatives Report, and Kaneohe Bay Drive Trunk Sewer Reconstruction Design Alternatives Report, Phase II), and in accordance with Chapter 343, Hawaii Revised Statutes.





C. PROPOSING AGENCY

The City and County of Honolulu Department of Design and Construction is the proposing agency.

D. APPROVING AGENCY

The City and County of Honolulu Department of Design and Construction is the approving agency.

E. LOCATION

Koolaupoko District, Oahu, Hawaii

F. TAX MAP KEYS

4-4-013, 4-4-014, 4-4-016, and 4-4-037

G. PROPOSED CONSTRUCTION SCHEDULE AND BUDGET

Funding for the Kaneohe Bay Drive Trunk Sewer Reconstruction construction work is included in the City's Capital Improvement Program (CIP) for Area A in FY 2007, and for Area B in FY 2008, respectively. The City intends to package both Area A and Area B as one project and advertise for construction bids by the end of the 2007 calendar year. The proposed CIP construction budget (combined Area A and Area B) is \$5,100,000.

II. SEWER SYSTEM EVALUATION AND ALTERNATIVES CONSIDERED

A. BACKGROUND

Initiation of Project

The condition assessment of Area A sewer lines was initiated following the emergency repair of two badly corroded manholes in the upstream section of the existing trunk sewer line. Inspection of these concrete manholes and adjacent concrete sewer pipes revealed severe deterioration in portions of the trunk sewer line due to corrosive action from hydrogen sulfides in the wastewater. In the process of evaluating this trunk sewer line, a section of the trunk sewer collapsed due to severe corrosion. This pipe failure led to the emergency repair of two adjacent manhole-to-manhole trunk sewer segments (18" and 15") and the rehabilitation of five trunk line manholes.

In addition to the trunk sewer's structural deficiencies, the trunk sewer alignment through private residential properties posed operational and maintenance problems for the City. The trunk sewer line and manholes were difficult to access for maintenance purposes, and the hydrogen sulfides released in the system were causing numerous odor complaints from residents along the existing trunk line alignment.

The Area B sewer system condition assessment involved low-lying collector sewers that discharge into Kaneohe Bay #3 WWPS. These sewer lines were suspected of being subjected to saltwater infiltration.

Description of Kaneohe Bay Drive Area

This existing sewer service area consists mainly of single-family dwellings located on both sides of Kaneohe Bay Drive. The sewer service area, covering approximately 310 acres, is shown on **Figure II-1**. Nearly all of the service area is zoned for residential use, including R-5, R-7.5, and R-10 zones. One parcel of land is zoned P-2, general preservation district.

Existing Sewer System

The existing sewer system includes approximately 1,124 linear feet of 15", 18", 21", and 24" gravity trunk sewer lines located between Kaneohe Bay #3 WWPS and Kaneohe Bay #2 WWPS. The lower two-third of the trunk sewer line is located in easements through private residential properties. The upstream end of the trunk

sewer is connected to the discharge manhole for the Kaneohe Bay #3 WWPS force main and the downstream end is connected to the Kaneohe Bay #2 WWPS wetwell.

The collection system sewer lines to be reconstructed or rehabilitated in Areas A and B include 795 linear feet of 10", vitrified clay pipes (VCP), and 5,200 linear feet of 8" and 6" VCP pipes. The sewer lines in Area A are located within the tributary area of the Kaneohe Bay #2 WWPS and the sewer lines in Area B are located within the tributary area of the Kaneohe Bay #3 WWPS. See **Figure I-2** and **Figure I-3**.

B. EVALUATION OF EXISTING SEWER LINES

All City-owned sewer lines and manholes within the Kaneohe Bay Drive Trunk Sewer Reconstruction areas were evaluated in terms of three major criteria: 1) hydraulic condition, 2) operational condition, and 3) structural condition.

Hydraulic Condition

Hydraulic condition assessments were conducted to determine the capability of the existing sewer lines to carry current and future projected design flows. The design flow projections were developed from the City's modified INFIX flow model.

The current and future projected wastewater design flows at the downstream end of Area A and Area are tabulated below.

Design Peak Flow Projection (mgd)*	Current Condition (1995)	Future Condition (2020)
Area A - Kaneohe Bay #2 WWPS	2.52	2.74
Area B - Kaneohe Bay #3 WWPS	1.27	1.44

*The flow projections were developed from the City's modified INFIX flow model

There are five sewer lines (manhole-to-manhole segments) in Area A that are hydraulically inadequate. All the sewer lines in Area B are hydraulically adequate.

Operational Condition

Operational condition assessments were based on maintenance issues, including sewer line cleaning frequencies, odor complaints, and accessibility to sewer lines located in easements through privately owned properties.

The City's Collection System Maintenance Division (CSM) of the Department of Environmental Services operates and maintains the municipal collection sewer system. CSM provided much of the data and information used to evaluate the operational condition of the existing sewer system. CSM recorded 32 odor

complaints from residents living along the trunk sewer line route (Area A) between 1994 and 2001. The odors were caused by the release of H₂S, mainly during turbulent flow conditions. The wastewater in the trunk sewer lines has high concentrations of hydrogen sulfides (H₂S). CSM also reported that the easement sewer lines were difficult to maintain due to limited accessibility to private properties.

Additionally, the sewer system evaluation included the review of data from past salinity studies to detect possible saltwater intrusion into the system. The high salinity of wastewater in the Area B collector lines initiated the investigation of these lines. The City also had major concerns regarding certain collector sewers located along the shoreline of Kaneohe Bay. These concerns included potential pollution of Kaneohe Bay's Class AA waters from breaks or spills from the sewers located near the bay and the inaccessibility of these sewers for maintenance or repair purposes.

Structural Condition

Structural condition assessments were conducted for the existing Area A and Area B sewer systems. Pipeline conditions were based on evaluations of damaged, misaligned, or cracked pipes, sagged sewer lines, and pipe corrosion observed through closed circuit television (CCTV) inspections of 7,320 feet of existing pipes. Manhole condition assessments were based on visual inspections, from above ground, of 50 existing sewer manholes.

CCTV inspections of the trunk sewer lines revealed that portions of the line were badly corroded due to high levels of hydrogen sulfides (H₂S) in the wastewater and the release of H₂S caused by turbulent flow conditions. The turbulent wastewater flow conditions occur mainly at drop connections and sharp horizontal bends in manholes.

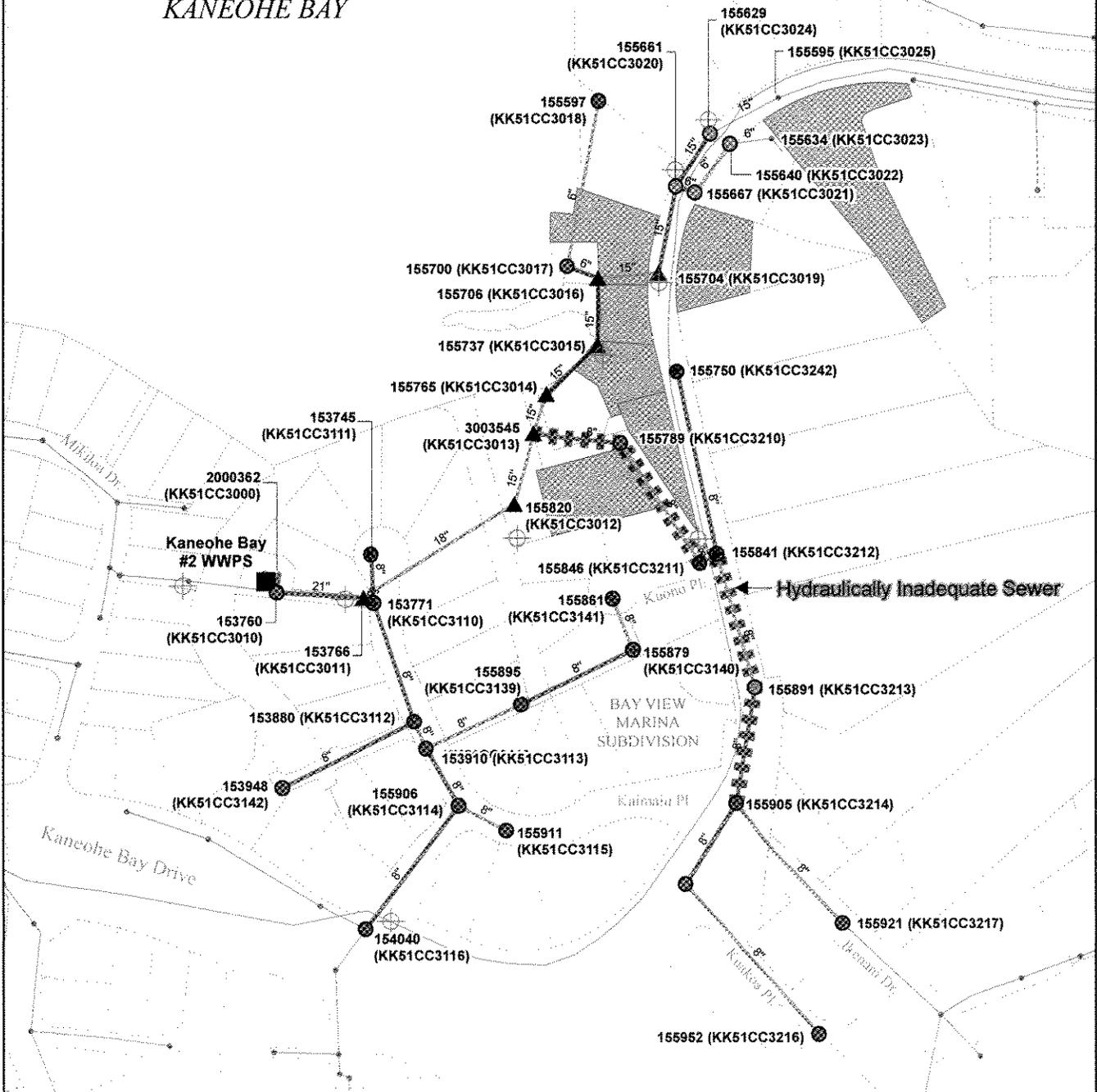
Condition Mapping

Deficiencies of the trunk and collector sewers were identified through the evaluations of their hydraulic, operational, and structural conditions. The deficiencies of the existing sewers in Area A and Area B are shown in **Figure II-2** and **Figure II-3**, respectively.

C. ALTERNATIVES CONSIDERED

Alternative remedial measures were developed and evaluated to address hydraulic, structural, and operations & maintenance deficiencies identified through the condition assessments. A "no action" alternative and the alternatives to correct deficiencies in the existing sewer system are discussed below.

KANEOHE BAY



LEGEND				
<ul style="list-style-type: none"> —●— GOOD Sewer Line / Manhole Condition —○— MINOR Sewer Line / Manhole Defect —◐— MODERATE Sewer Line / Manhole Defect —◑— SEVERE Sewer Line / Manhole Defect —◒— VERY SEVERE Sewer Line / Manhole Defect ▲ REPAIRED Manhole ⊗ Exist. Soil Boring Location 	<ul style="list-style-type: none"> ▨ Odor Problems 			

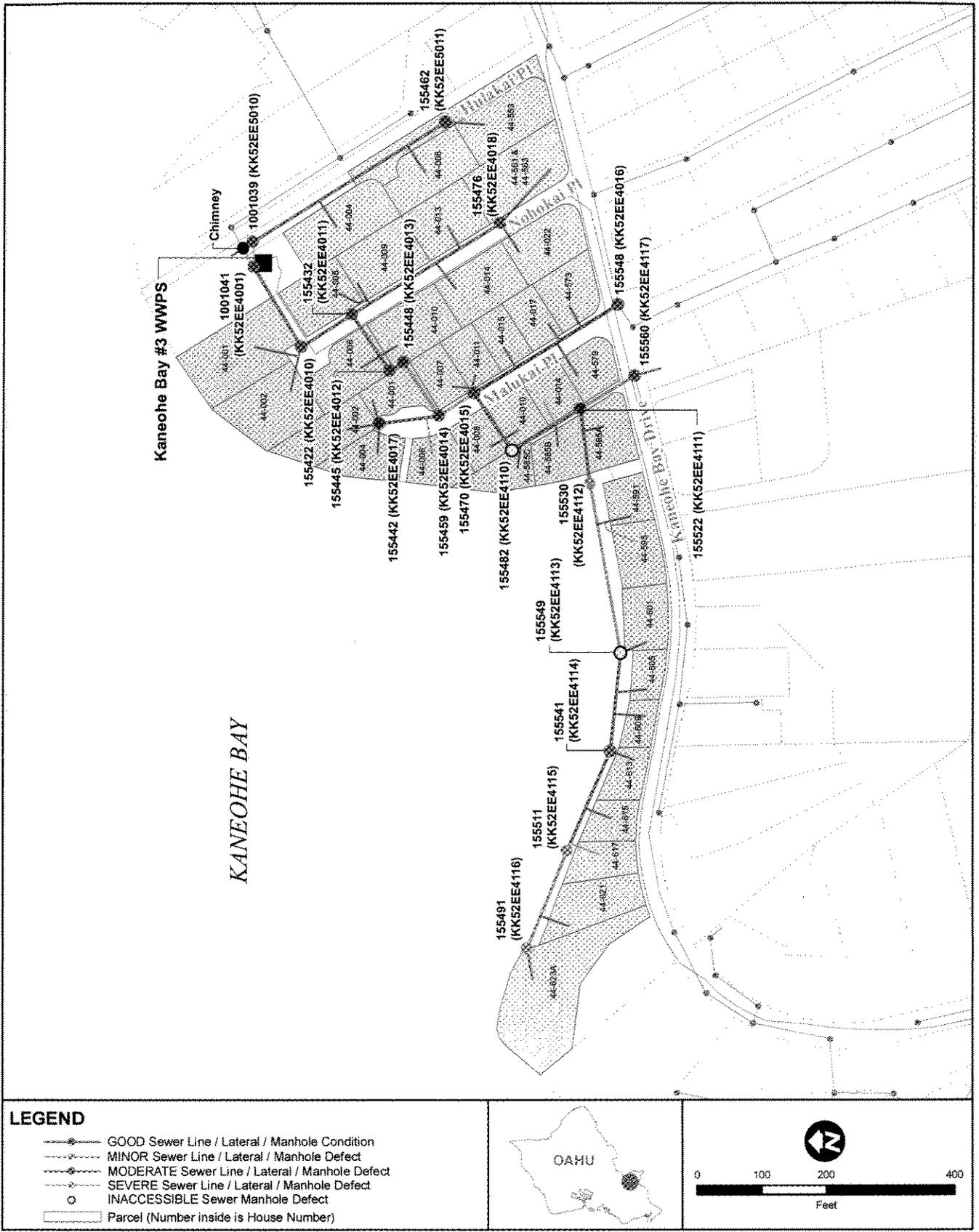


Figure II-3 Area B Deficiencies Summary

"No action" Alternative - A "no action" alternative would not be acceptable for the following reasons:

Area A - The risk of additional structural failures of the trunk sewer lines still exists. Structural failure leading to the collapse of the trunk sewer could be catastrophic. A large sinkhole could form above the collapsed section of pipe that could cause structural damage to adjacent homes and/or other improvements in easement areas or cause vehicles to fall into sinkholes in roadway areas. Wastewater flowing out of the broken sewer could contaminate the surrounding ground and groundwater. The collapsed pipe could cause blockages that cause upstream sewers to overflow and cause wastewater spills that threaten the health, safety and welfare of the public. Additionally, the City would continue to have problems of inaccessibility to the easement trunk sewer lines, and the residents living near the trunk sewer line would continue to be subjected to hydrogen sulfide odors.

Area B - The sewer lines in the proximity of Kaneohe Bay would continue to be subjected to salt water intrusion and exfiltration of wastewater from these lines could pollute the Class AA waters of Kaneohe Bay. Additionally, extraneous infiltration waters increases the costs to transport, treat, and dispose of the wastewater from the Area B sewer system.

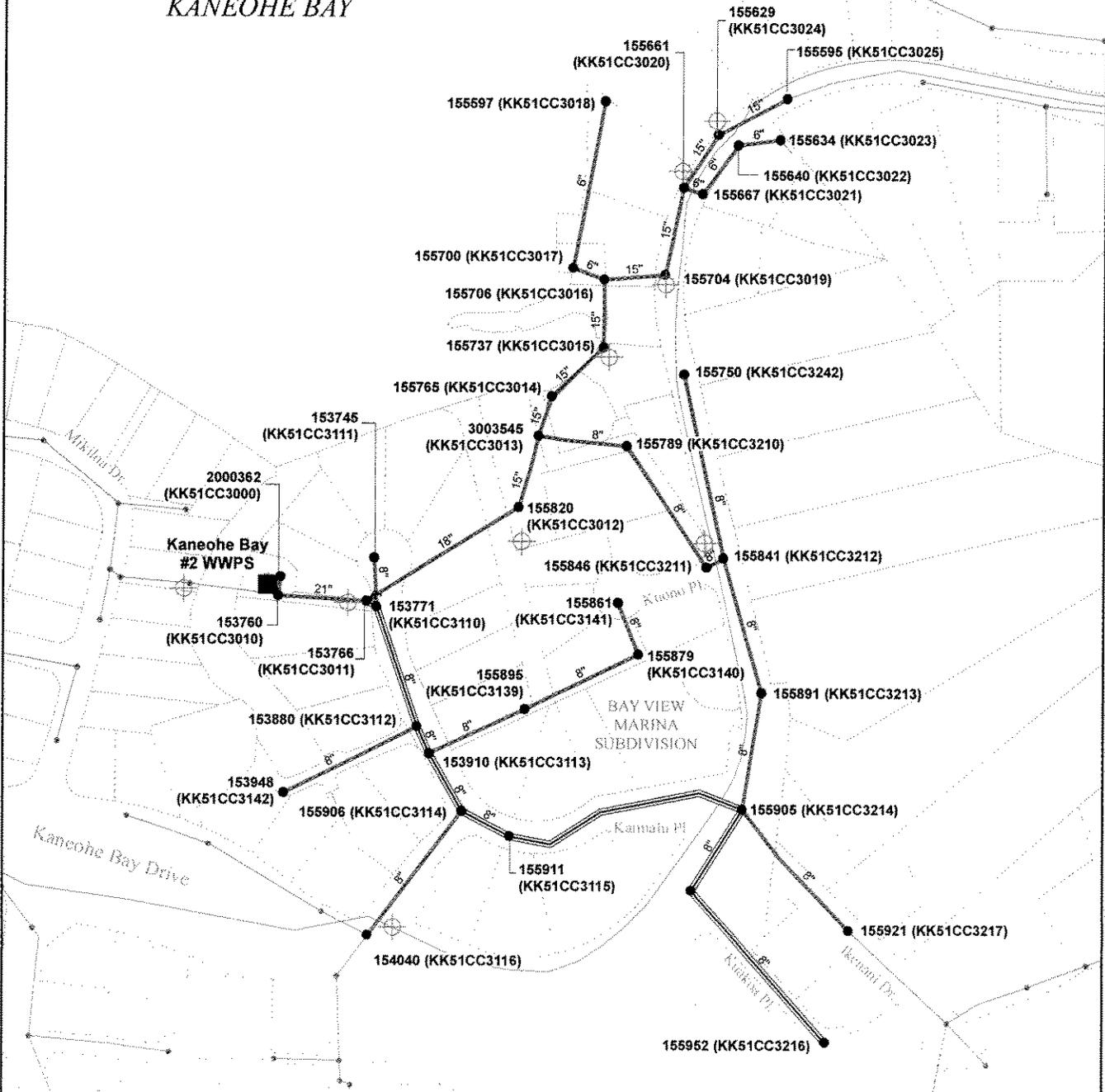
Area A Alternatives

Alternative 1 – Construct a new sewer main line along Kaimalu Place to divert the flow from Ikeanani Drive and Kuakoa Place to the new sewer line in order to address the hydraulic capacity deficiency of the existing downstream sewer mains. See **Figure II-4**. Alternative 1 does not address the operation and maintenance issues of the existing trunk sewer. The preliminary cost estimate, based on open trench construction, is \$878,000.

Alternative 2 – Construct a new Kaneohe Bay Drive trunk line along Kaneohe Bay Drive and Kaimalu Place and discharge the wastewater flows into Kaneohe Bay #2 WWPS. See **Figure II-5**. Alternative 2 bypasses the existing Kaneohe Bay Drive Trunk Sewer located within easements through residential backyards. The preliminary cost estimate, based on open trench construction, is \$2,282,000.

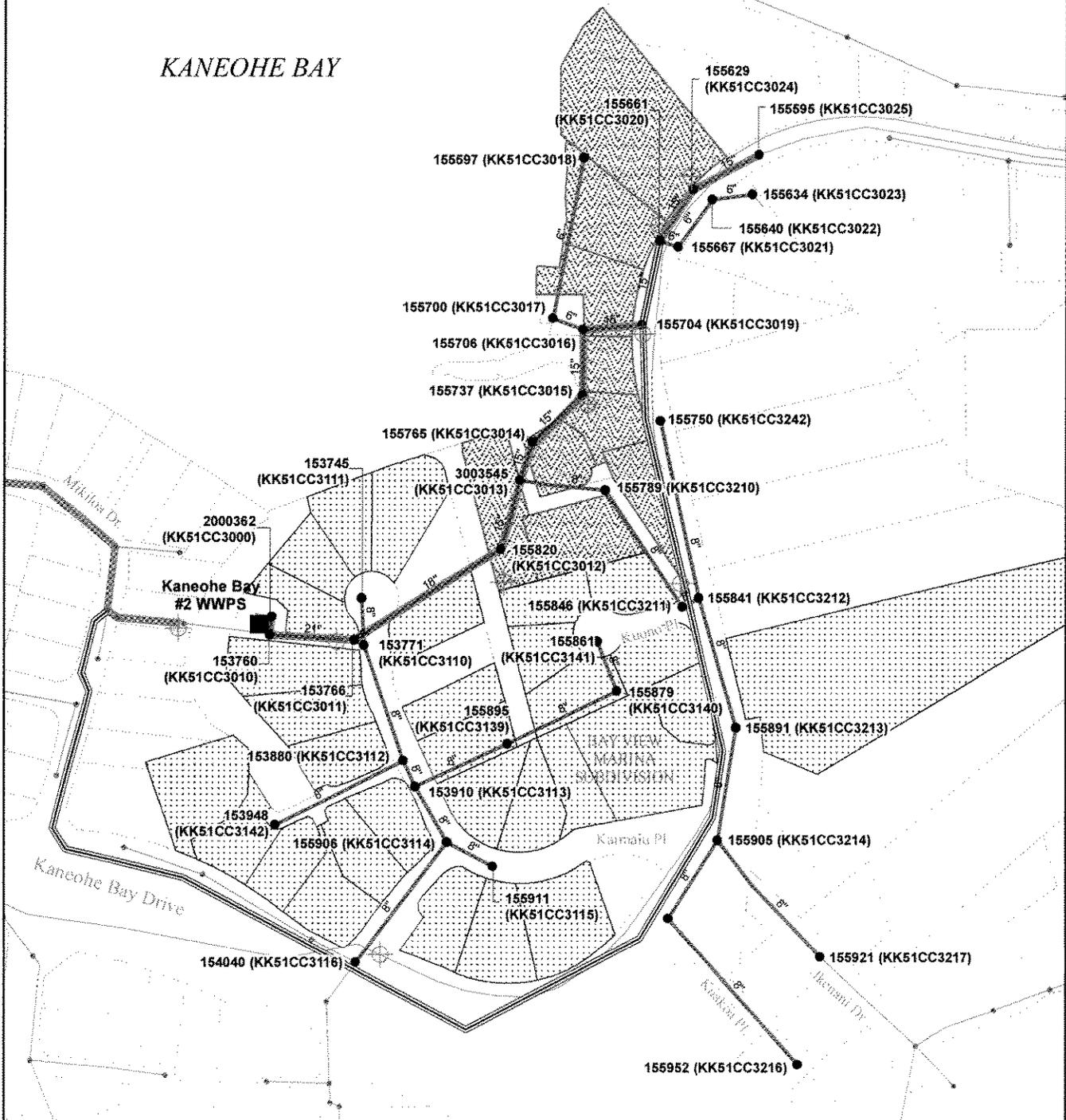
Alternative 3 – Construct a new Kaneohe Bay Drive trunk line along Kaneohe Bay Drive, past Kaimalu Place and Mokapu Saddle Road, turning makai into Mikiola Drive. The trunk sewer would be connected to the 21-inch trunk sewer located downstream of the Kaneohe Bay #2 WWPS force main discharge point. See **Figure II-6**. Alternative 3 bypasses Kaneohe Bay #2 WWPS and downgrades it from one of the series of major wastewater pump stations in the Kaneohe Bay Sewerage System to a small pump station handling local wastewater flows. The preliminary cost estimate, based on open trench construction, is \$3,087,000.

KANEOHE BAY



<p>LEGEND</p> <ul style="list-style-type: none"> Existing Sewer Line and Sewer Manhole Existing Sewer Line and Sewer Manhole Evaluated Proposed New Sewer Line Exist. Soil Boring Location 		
---	--	--

KANEOHE BAY



LEGEND		Existing Sewer Line and Sewer Manhole Evaluated
		Kaneohe Bay Drive Trunk Sewer
		Proposed New Sewer Line
		Exist. Soil Boring Location
		Low Pressure Sewer Area for Alternative 3B
		Low Pressure Sewer Area for Alternative 3C

The three alternatives were evaluated in terms of hydraulic, construction, operation & maintenance, and cost factors. Alternative 1 was eliminated because it does not address operation & maintenance issues that initiated the assessment of the Kaneohe Bay Drive trunk sewers. Alternative 2 addresses the maintenance issues and corrects the hydraulic and structural deficiencies. Alternative 3 also addresses the maintenance issues and corrects the hydraulic deficiencies and provides the additional benefits of improving the overall sewer system at a substantially higher cost. The substantially higher construction costs of the additional benefits of Alternate 3 could not be justified because the existing Kaneohe Bay # 2 WWPS is still in good condition.

Following evaluation of the various alternatives, **Alternative 2** was selected as the recommended action to correct the deficiencies of the existing sewers in Area A. Section III. Proposed Actions describes the proposed work in detail.

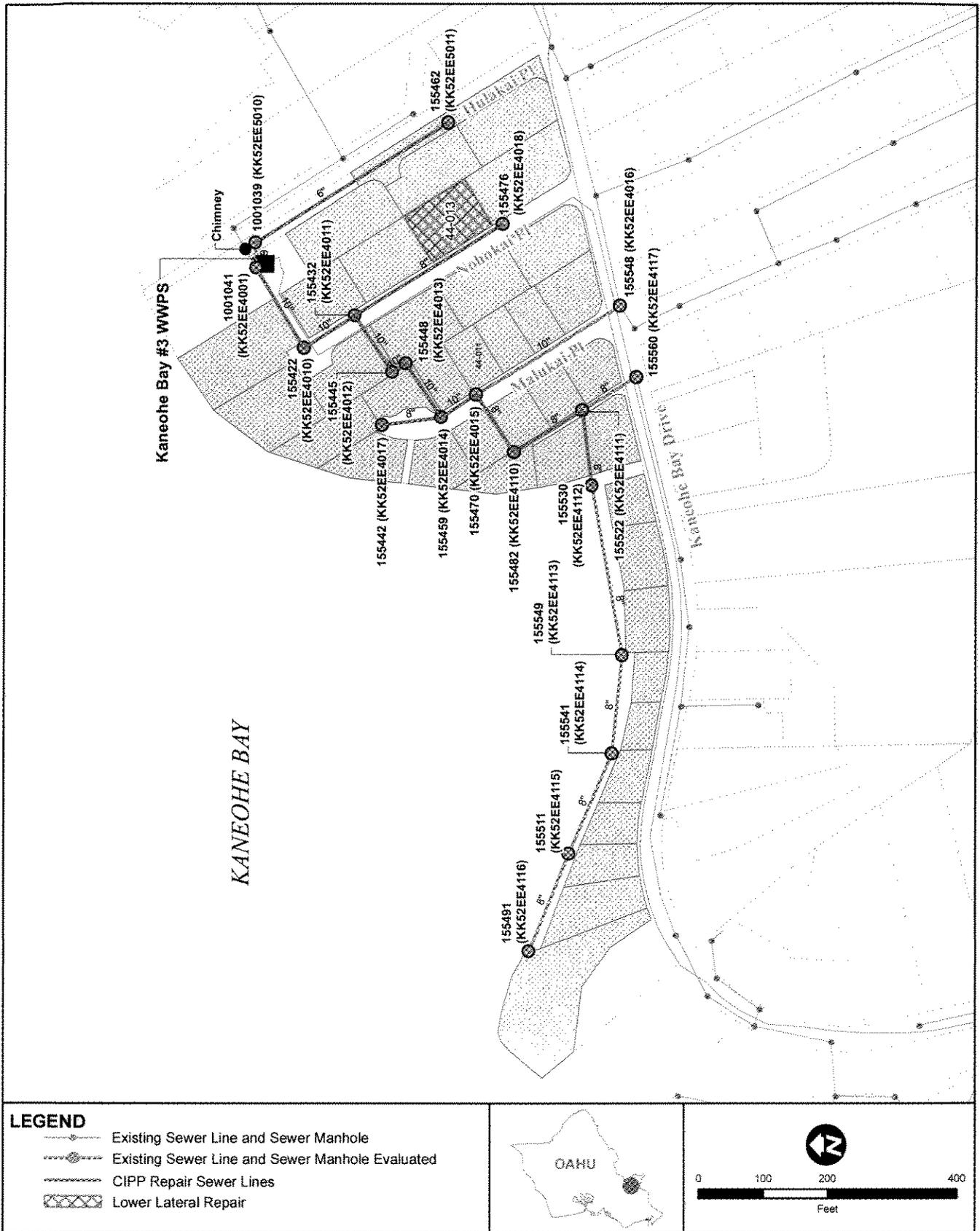
Area B Alternative

The Area B sewer lines are 10", 8", or 6" diameter collector sewer lines that are located near the Kaneohe Bay shoreline.

The Area B engineering study originally included a sewer line with four manhole-to-manhole segments that are located along the shoreline of Kaneohe Bay between Sewer Manholes 155530 (KK52EE4112) and 155491 (KK52EE4116). Subsequently, the City has deleted this sewer line from this project.

The conditions and locations of the remaining Area B sewer lines have led to the selection of cured-in-place pipe (CIPP) lining as the only feasible rehabilitation alternative. See **Figure II-7**. CIPP lining is installed in the interior of existing manhole-to-manhole pipe segments and structurally reinforces the entire pipe segment. The lining is often designed to "stand alone" and would function even if the existing pipes were severely deteriorated. The linings are seamless and prevent leaks from defective pipe joints. CIPP lining of Area B sewer pipes is expected to be highly effective since the existing sewer lines are located below the groundwater table and leaking joints could cause salt-water intrusion or exfiltration of wastewater into the groundwater.

Section III. Proposed Actions describes the proposed sewer rehabilitation work in detail.



III. PROPOSED ACTIONS

A. DESCRIPTION OF PROPOSED WORK

Based on the selected alternatives for Area A and Area B, remedial measures were developed to correct deficiencies in both project areas.

Area A

Alternative 2 was developed into the following proposed actions to address the sewer system's hydraulic, operations and maintenance, and structural deficiencies shown in **Figure II-2**. The work recommended for Area A is summarized below:

- Construct a new trunk line between Sewer Manholes 155661 (KK51CC3020) and 153766 (KK51CC3011) along Kaneohe Bay Drive and Kaimalu Place;
- Rehabilitate the severely deteriorated existing 21-inch unlined RCP and 24-inch unlined CIP influent lines into Kaneohe Bay #2 WWPS with cured-in-place pipe (CIPP) lining;
- Rehabilitate and/or repair the following sewer lines with cured-in-place pipe (CIPP) lining: Sewer Manholes 3003545 (KK51CC3013) to 155789 (KK51CC3210), 153771 (KK51CC3110) to 153745 (KK51CC3111), 153880 (KK51CC3112) to 153948 (KK51CC3142), 155906 (KK51CC3114) to 154040 (KK51CC3116), 155895 (KK51CC3139) to 155879 (KK51CC3140), 155905 (KK51CC3214) to 155921 (KK51CC3217), 153880 (KK51CC3112) to 153771 (KK51CC3110), and 155846 (KK51CC3211) to 155841 (KK51CC3212);
- Abandon the existing 15-inch line between Sewer Manholes 155661 (KK51CC3020) and 155706 (KK51CC3016); and the existing 8-inch lines between Sewer Manholes 153880 (KK51CC3112) and 155906 (KK51CC3114);
- Reconstruct the severely sagged lines between Sewer Manholes 155918 (KK51CC3215) and 155905 (KK51CC3214), and between Sewer Manholes 155895 (KK51CC3139) and 153910 (KK51CC3113);
- Repair and rehabilitate Sewer Manholes 155595 (KK51CC3025), 155629 (KK51CC3024), 155661 (KK51CC3020), 155667 (KK51CC3021), 155640 (KK51CC3022), 155706 (KK51CC3016), 153760 (KK51CC3010), and 155918 (KK51CC3021); and

- Redirect the flows at Sewer Manholes 155905 (KK51CC3214) and 155906 (KK51CC3114) to the new trunk line and plug and cut their existing connections to Sewer Manholes 155891 (KK51CC3213) and 153910 (KK51CC3113), respectively.

The major component of this project consists of construction of new 12" and 18" trunk sewer lines in Kaneohe Bay Drive and Kaimalu Place, between Sewer Manholes 155661 (KK51CC3020) and 153766 (KK51CC3011). The new line relocates the trunk sewer out of private properties into public road right-of-ways and enables City crews to readily access the trunk sewer for maintenance purposes. The sewer lines would be designed to smooth the flow to minimize the release of hydrogen sulfides from the wastewater stream. Construction of the new trunk sewer line would eliminate the odor nuisances that have plagued the neighborhood in the past.

Severe defects in the collector sewers would also be addressed and corrected by this project. Three 8" lines with structural sag problems will be reconstructed (replaced with new lines). Existing pipes with inadequate capacities in certain branch sewer lines will be corrected by diverting several upstream sewer line segments into the new trunk sewer line. **Figure III-1** shows the recommended work for the Area A sewer system.

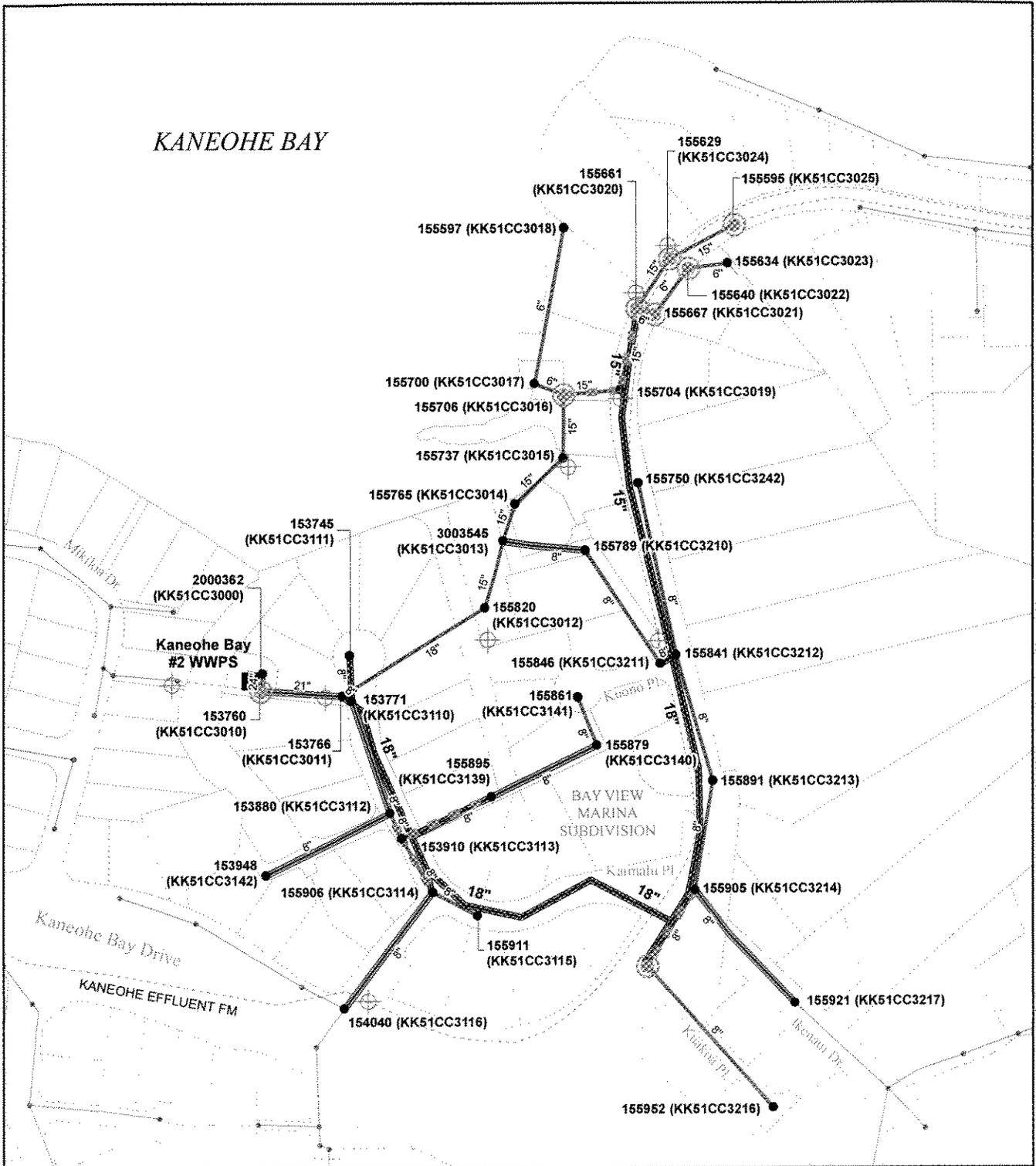
Area B

The CIPP lining alternative for Area B was developed into the following proposed actions to address the sewer system's structural deficiencies as shown in **Figure II-3**. The recommended work is summarized below:

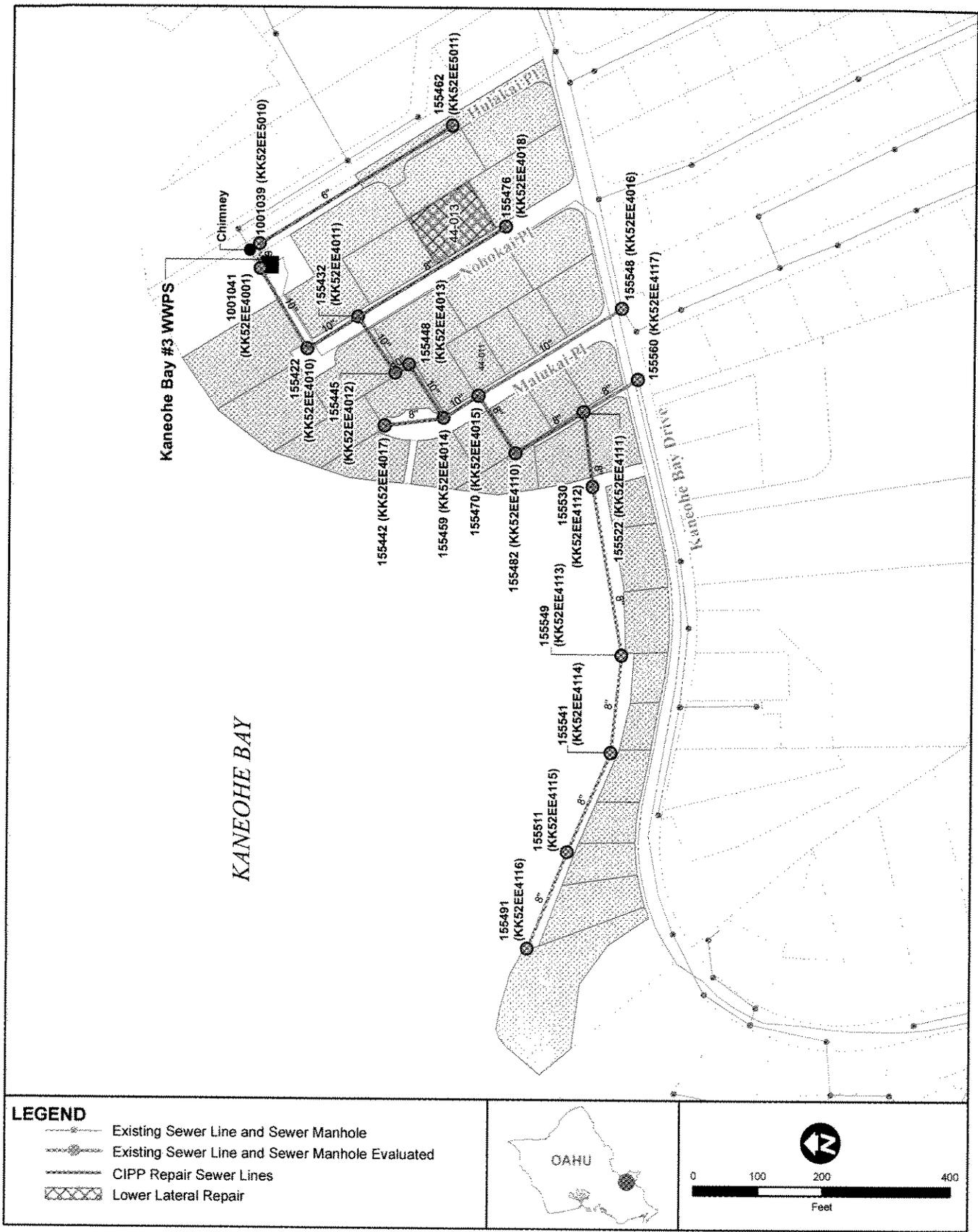
- Rehabilitate the 10", 8", and 6" sewer lines between Sewer Manholes 1001041 (KK52EE4001) and 155530 (KK52EE4112) with cured-in-place pipe (CIPP) lining. Ten manhole-to-manhole pipe segments (10", 8", & 6" VCP) with pipe joint leaks will be lined.
- Rehabilitate the 8" sewer line between Sewer Manholes 155476 (KK52EE4018) and 155432 (KK52EE4011) with cured-in-place pipe lining.
- Rehabilitate the 6" manhole-to-manhole pipe segment between Sewer Manholes 1001039 (KK52EE5010) and 155462 (KK52EE5011) with cured-in-place pipe (CIPP) lining.
- Repair one service lateral with moderate infiltration in the vicinity of the connection to the private sewer line located at 44-013 Nohokai Place.

Figure III-2 shows the recommended work for Area B.

KANEOHE BAY



LEGEND		Existing Sewer Line and Sewer Manhole Evaluated
		Kaneohe Effluent Force Main
		Exist. Soil Boring Location
		New Sewer to be Constructed
		Sewer Line to be Abandoned
	Sewer Line / Manhole to be Rehabilitated	



IV. DESCRIPTION OF THE ENVIRONMENT

A. PROJECT LOCATION

The recommended sewer improvements proposed in Section III are located on the western side of Mokapu Peninsula near the southeast shoreline of Kaneohe Bay, Koolaupoko, Oahu. The greater portion of this project will be located within the Kaneohe Bay Drive Right-of-way, north of the Mokapu Saddle Road, see **Figure I-1**. The area primarily consists of residential properties located along the southeastern shoreline of Kaneohe Bay. See **Figures I-2** and **I-3**.

B. LAND CLASSIFICATION AND ZONING

State Land Use

The State Land Use Commission classifies the land use for the project area as Urban.

Oahu General Plan

The proposed project is in agreement with the stated policies under Objectives B, C, and D under V. Transportation and Utilities of the City's General Plan. These policies include: "provide safe, efficient, and environmentally sensitive wastewater collection and waste-disposal services", "maintain existing utility systems in order to avoid major breakdowns", "provide improvements to utilities in existing neighborhoods to reduce substandard conditions", and "give primary emphasis in the capital-improvement program to the maintenance and improvement of existing roads and utilities".

City and County of Honolulu Zoning

The City and County of Honolulu zoning designations for the project area properties include R-5, R-7.5, and R-10 residential zones. Sewer systems are considered "public use" and are found in all zoning districts. See **Figure II-1**.

Koolaupoko Sustainable Communities Plan

The Koolaupoko Sustainable Communities Plan is the development plan for the Koolaupoko District that was adopted under Ordinance 00-47 by the City and County of Honolulu. The proposed project is consistent with applicable provisions under section 3.3 Wastewater Treatment of the Koolaupoko Sustainable Communities Plan.

The proposed project would provide improvements to the collection system by replacement and rehabilitation of deteriorated sewer lines and manholes due to corrosion and structural defects, correct hydraulic deficiencies, and reduce maintenance requirements. These improvements are compatible with the statement in the sub-section titled Collection System under 4.3.1 Kailua-Kaneohe-Kahaluu Wastewater Service Area, which states: "Improvements to the collection system include the provision of relief lines throughout the Kailua and Kaneohe basins, the replacement of deteriorating sewer lines, increasing pump station capacities, and adding storage capacity for wet-weather flows."

Sub-section 4.3.3 General Policies, states: "Mitigate visual, noise, and odor impacts associated with wastewater collection systems, especially when they are located adjacent to residential designated areas." A major component of the proposed project is the relocation of a trunk sewer line out of easements in private residential properties. The new trunk sewer would eliminate odor impacts upon residents living adjacent to the old trunk sewer lines. In addition, the proposed trunk line would be designed to provide smoother flows to minimize release of hydrogen sulfides (H₂S) from the wastewater flows.

Besides replacing or rehabilitating deteriorated sewer pipes and manholes and minimizing odor impacts, the proposed project improves operations of the sewer system, reduces sewer cleaning needs, and provides accessibility to the trunk sewer for maintenance purposes. The proposed project is consistent with, and does not conflict with any of the policies in the Koolaupoko Sustainable Communities Plan.

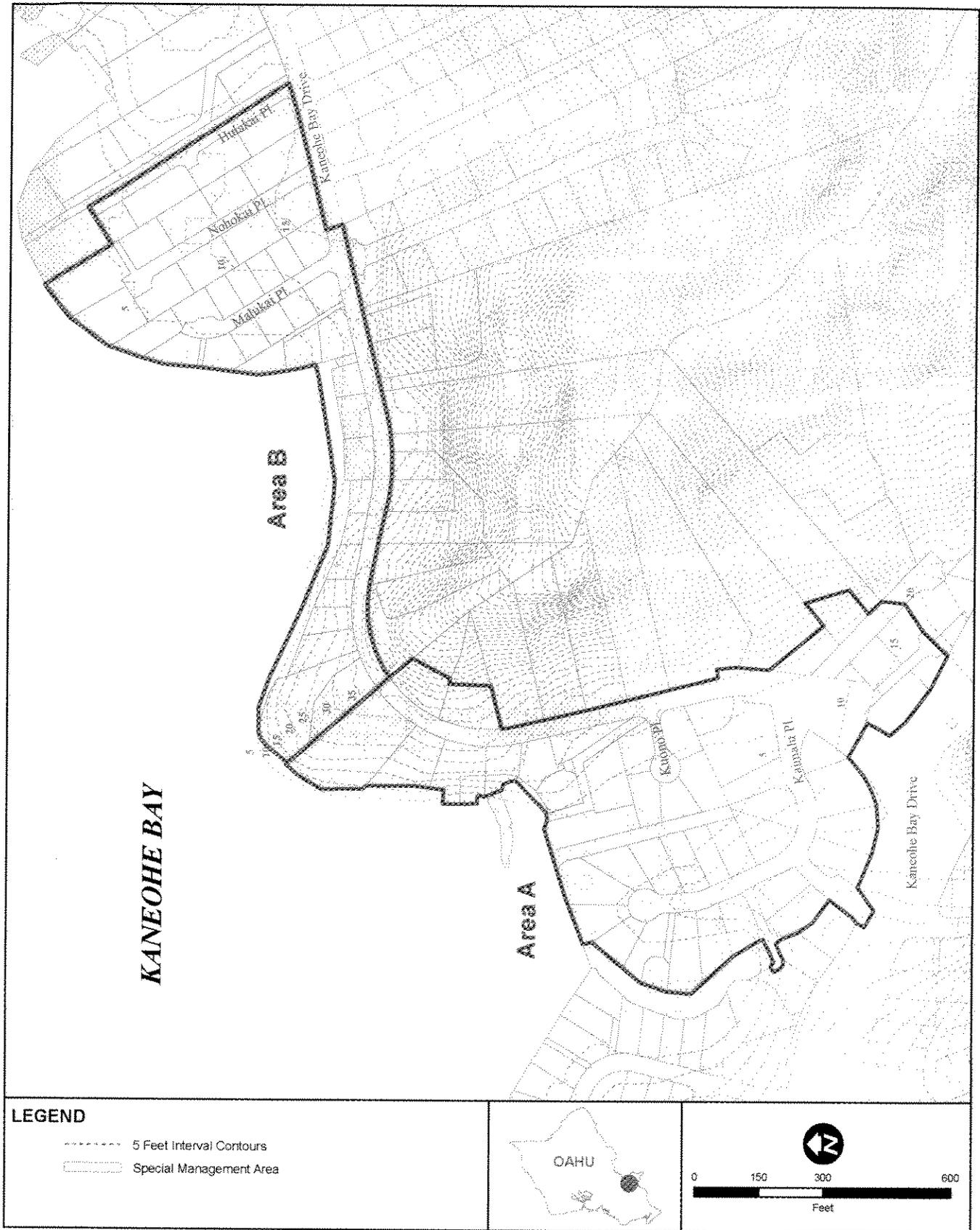
Special Management Area

Portions of the proposed project are located within the Special Management Area (SMA). See **Figure IV-1**. The City's Department of Planning and Permitting confirmed that the proposed project does not require a SMA Use Permit, pursuant to Section 25-1.3 (2) (M), ROH, "Installation of underground utility lines and appurtenant above ground fixtures less than 4 feet in height along existing corridors."

C. PHYSICAL FEATURES

Topography

The project site is about 4 miles away from the summit of the Koolau Range. The project site has ground elevations ranging from approximately 5 feet to 33 feet MSL. Most of the new and reconstructed sewers are located in road right-of-ways; the road slopes range from 0 to about 7 percent. See **Figure IV-1**.



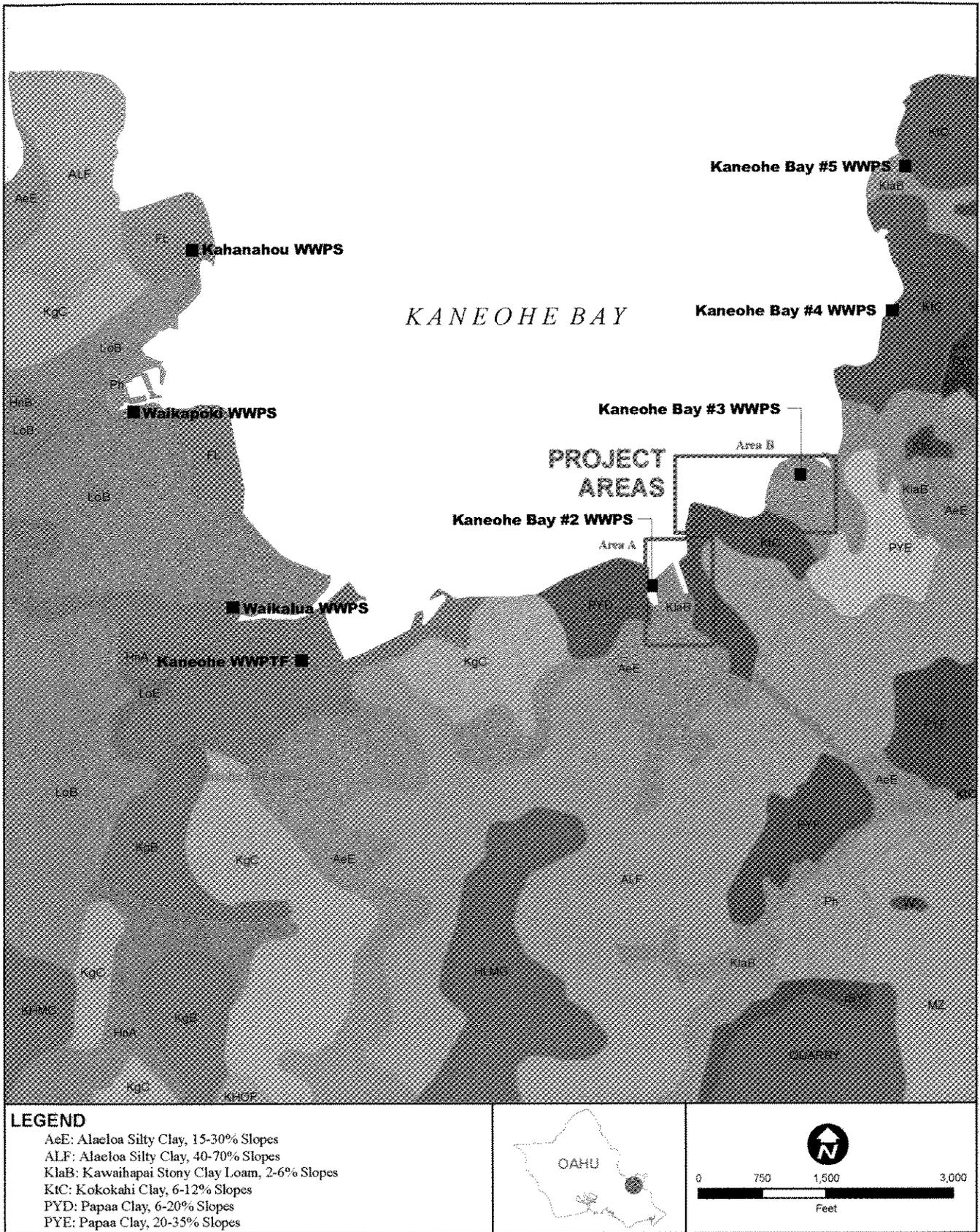
Soils

The Soil Survey issued in 1972 by the U.S. Department of Agriculture Soil Conservation Service (USDA-SCS) indicates that there are three soil types in the project area. The soil types are classified as K1aB (Kawaihapai stony clay loam), KtC (Kokokahi clay), and AeE (Alaeloa silty clay). See **Figure IV-2**. The project area soil types are described as follows.

Kawaihapai stony clay loam, 2 to 6 percent slopes (K1aB). - This soil occupies smooth slopes. In a representative profile, the surface layer is dark-brown clay loam about 22 inches thick. The next layer is dark-brown stratified sandy loam, 32 inches thick. The substratum is stony and gravelly. The soil is neutral in reaction throughout the profile. Permeability is moderate. Runoff is slow and the erosion hazard is slight. The available water capacity is about 1.8 inches per foot in the surface layer and about 1.6 inches per foot in the subsoil. There are enough stones in this soil to hinder cultivation; this soil has been used for sugarcane, truck crops and pasture.

Kokokahi clay, 6 to 12 percent slopes (KtC). - This soil is on talus slopes and alluvial fans. In a representative profile, the surface layer is very dark gray clay, about 14 inches thick. The next layer, about 12 inches thick, is dark grayish-brown clay that has subangular blocky structure. The substratum is grayish-brown and light brownish-gray clay, 14 to more than 20 inches thick. These soils are very sticky and very plastic, and they crack widely upon drying. The soil is slightly acid to neutral in the surface layer and slightly acid to alkaline below. Permeability is slow to moderately slow. Runoff is medium, and the erosion hazard is slight to moderate. The available water capacity is about 1.6 inches per foot of soil. Workability is difficult because of the sticky, plastic nature of the clay and the narrow range of moisture content within which the soil can be cultivated. The shrink-swell potential is high. This soil has been used for pasture and home sites.

Alaeloa silty clay, 15 to 35 percent slopes (AeE). - This soil occurs on smooth side slopes and toe slopes in the uplands. In a representative profile, the surface layer is dark reddish-brown silty clay about 10 inches thick. The subsoil, about 48 inches thick, is dark-red and red silty clay that has subangular blocky structure. The substratum is soft, weathered igneous rock. The soil is medium acid in the surface layer and strongly acid in the subsoil. Permeability is moderately rapid. Runoff is medium and the erosion hazard is moderate. The available water capacity is about 1.2 inches per foot in the surface layer and 1.6 inches per foot in the subsoil. Workability is difficult because of the slope.



Hirata & Associates, Inc. conducted soils borings along Kaimalu Place and Kaneohe Bay Drive in June 2005, and the soil conditions were described as follows:

Soil conditions encountered in Kaimalu Place were subgrade soils consisting of medium stiff brown sandy silt and mottled brown silty gravel to depths of about 3 feet. Underlying the subgrade soils was medium stiff to firm mottled grayish brown and reddish brown silty clay with sand. Underlying the silty clay at depths of 5 to 9 feet were relatively loose and soft gray silty gravel and sandy silts.

Soil conditions along Kaneohe Bay Drive were described as subgrade soils consisting of medium stiff to stiff mottled brown and grayish to reddish brown silty clay to depths from 10 to 18 feet. Underlying the silty clay was dense to medium hard mottled brown, highly to completely weathered basalt.

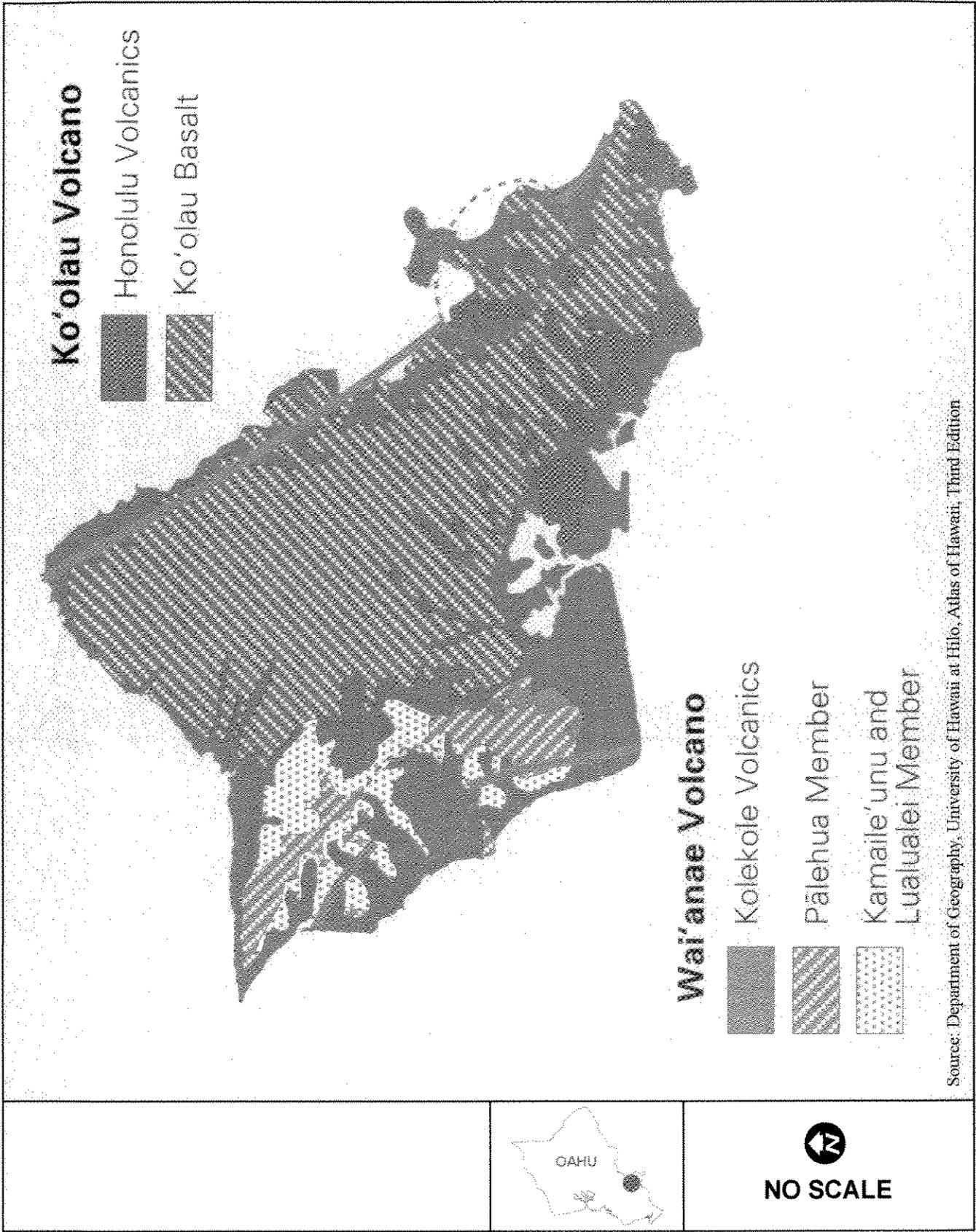
Geology

The project area is situated in the windward coastal area of Oahu. The dominant geological feature of windward Oahu is the Koolau Range, which stands as the eroded remnant of a volcano dome. The Koolau Range is about 37 miles long and oriented in the northwest to southeast direction. In general, the windward coastal area was formed through the deposition of lava, volcanic ash, and cinders from the Koolau Volcano, followed by erosion and the deposition of alluvium. The worldwide rise and fall of the seas over a long period of time led to deposition of lagoonal, marine, and younger alluvium. Portions of low-lying lands have been altered over the past century by placement of manmade fill. The surface and subsurface alluvium consists of brown to reddish silty clays with rocks, or brownish to gray clays. The surface layer consists mostly of alluvium and fill. See **Figure IV-3**

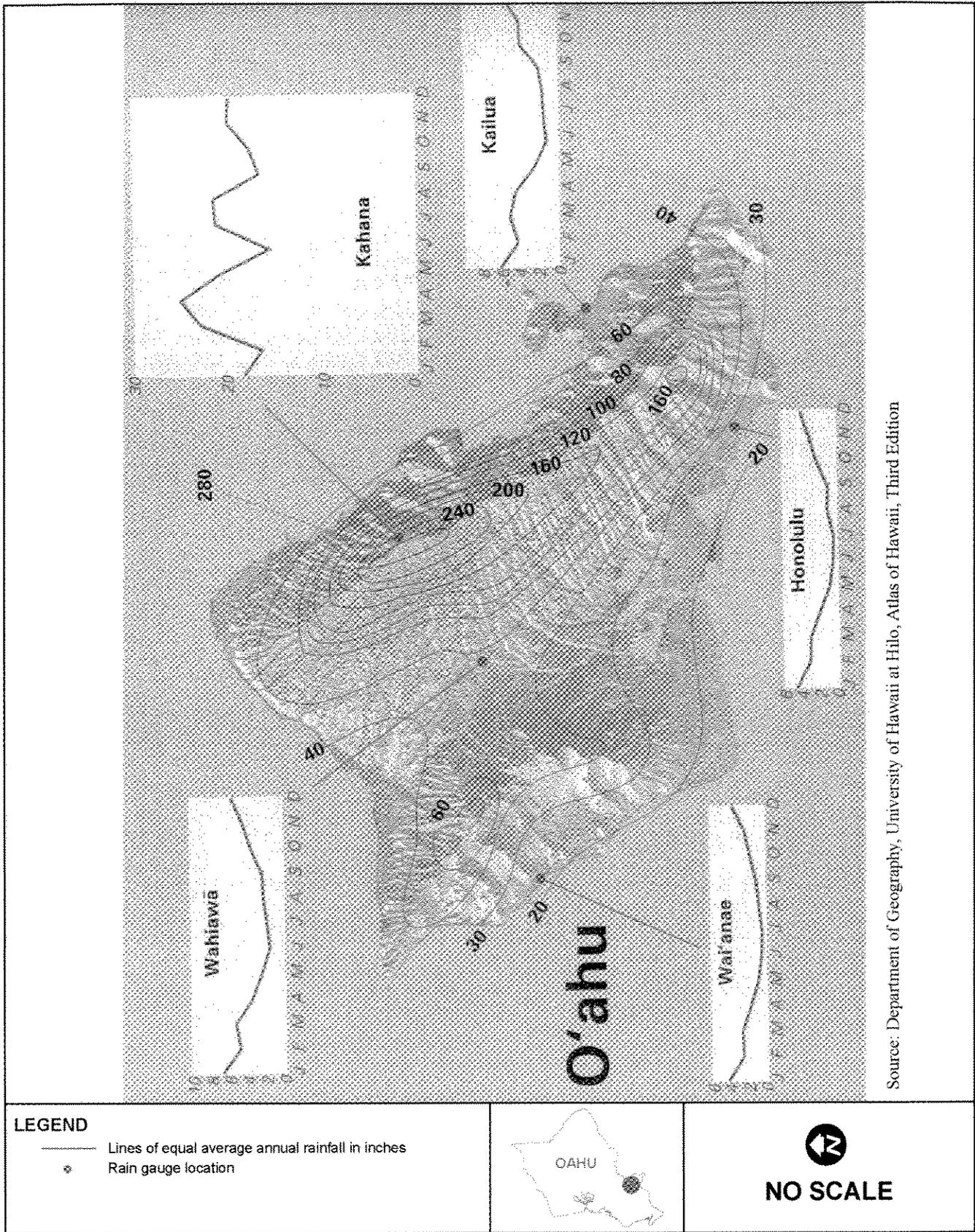
Climate

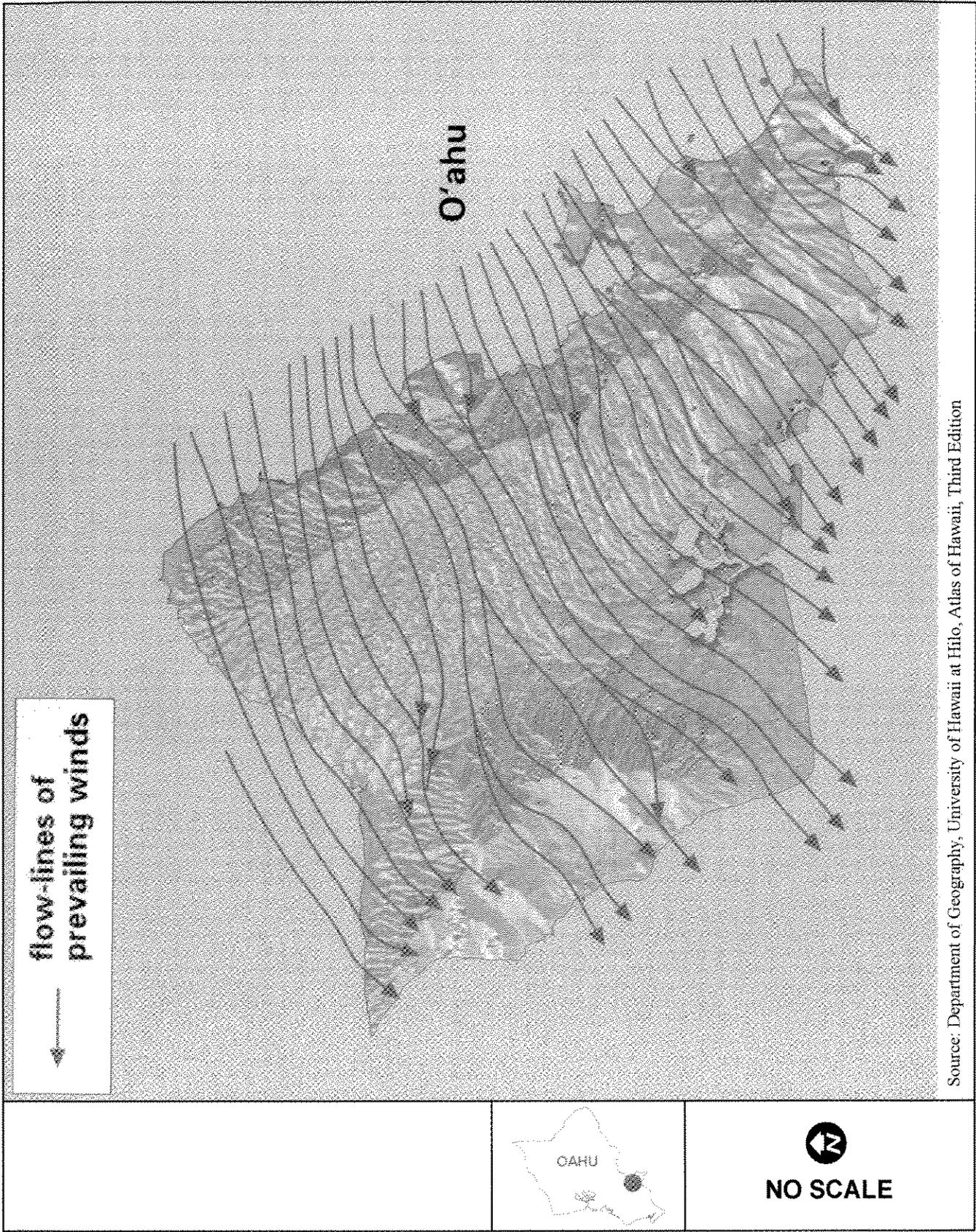
The Kaneohe Bay Drive project area has a mean annual rainfall of approximately 60 inches. See **Figure IV-4**. As indicated in the figure, the rainfall varies greatly within short distances, with the mean annual rainfall being over 100 inches near the summit of the Koolau Range, only four miles from the project site. The heavy rainfall at the mountain summit is due to orographic rainfall, caused by the prevailing trade winds being forced to rise over the steep windward slope of the Koolau Range.

The temperatures (recorded at Kaneohe State Hospital) range from an average high of 77.5° F to an average low of 71.° F. The temperatures at the project site should be slightly higher than those temperatures due to the lower elevations at the project site. The prevailing winds are trade winds from the northeast. Wind velocities average about 20 miles per hour. **Figure IV-5** shows the prevailing wind directions.



Source: Department of Geography, University of Hawaii at Hilo, Atlas of Hawaii, Third Edition





Water Quality

An Oahu Water Quality Map was published in October 1987 by State Department of Health, Office of Environmental Planning. The map, in conjunction with Hawaii State Department of Health, Hawaii Administrative Rules, Chapter 11-54, Water Quality Standards for receiving water classifications, defines inland and marine water classes for the Island of Oahu. The Kaneohe Bay water is classified as Class AA marine water. See **Figure IV-6**.

Flood and Tsunami

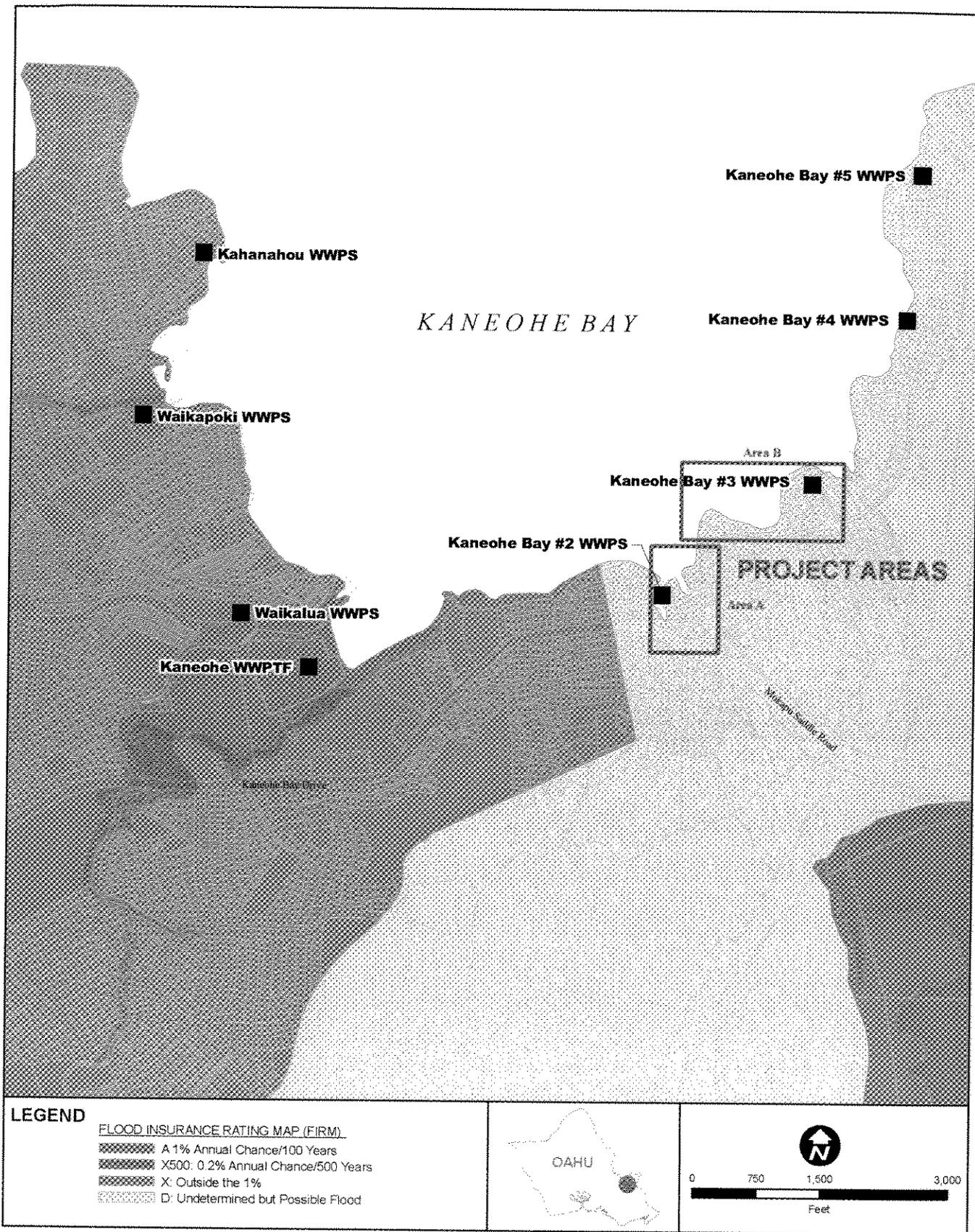
The Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) Community-Panel Number 150001 0060 B includes the project area. This map designates the project area as Zone D, flood hazards undetermined. The proposed sewer project reconstructs and rehabilitates underground sewer lines and manholes, and should have no effect on flood zones. The project area is outside of the tsunami evacuation zone. See **Figure IV-7**.

D. ARCHAEOLOGICAL AND HISTORICAL CONSIDERATIONS

A data search of the National and State Register of Historic Places indicated that there are no historic sites located within the project area.

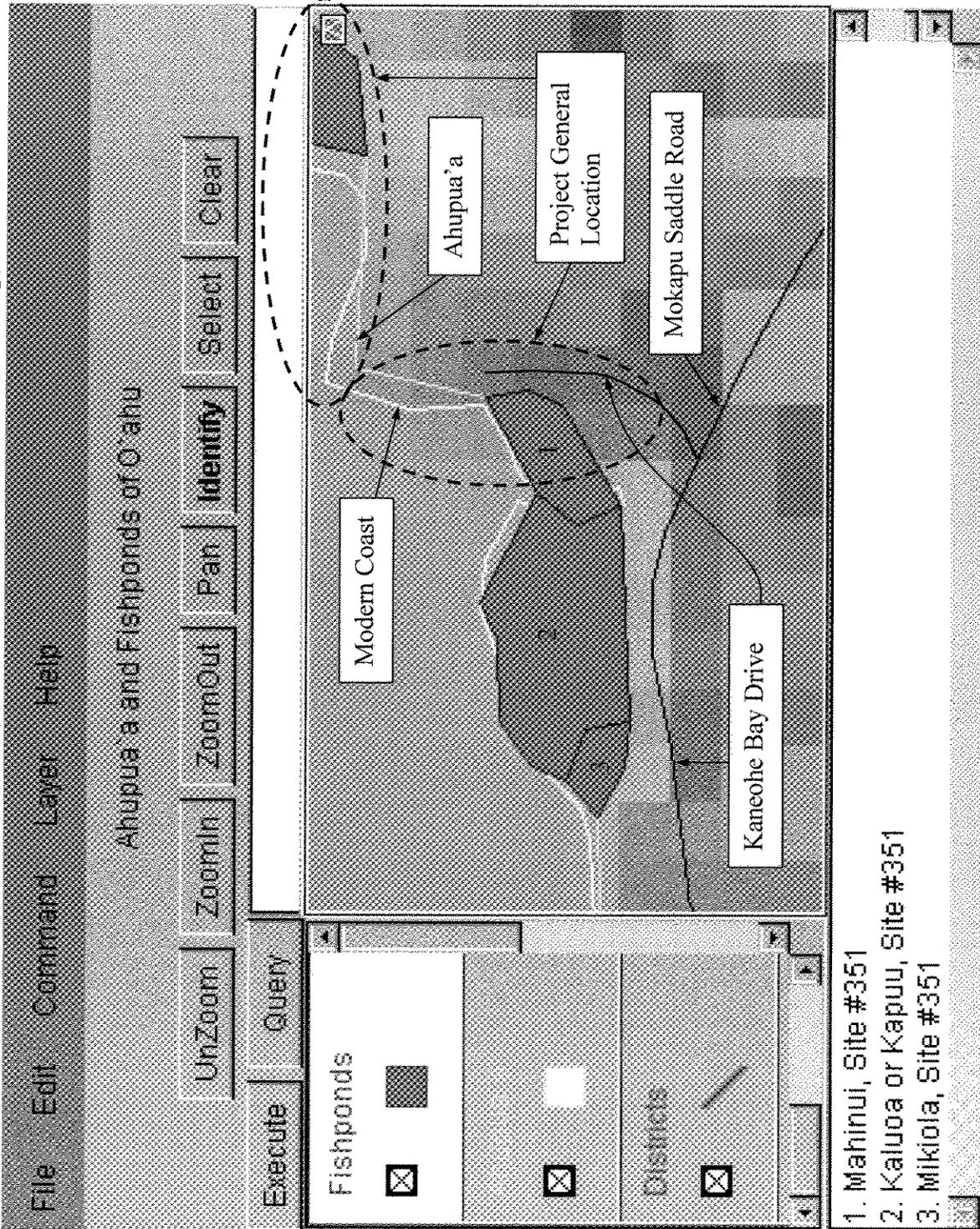
Consultation with the State Historic Preservation Division (SHPD) of the State Department of Natural Resources revealed that three historic fishponds were located in the vicinity of the project area before being filled over. One of these fishponds, Mahinui, was known to exist in the vicinity of the proposed sewer trunk line alignment along Kaimalu Place and near Kaneohe Bay #2 Wastewater Pump Station. SHPD stated that these fishpond sites, as well as the surrounding area, could yield historically significant information. SHPD has recommended that archaeological monitoring be conducted during all trench excavations for sewer lines in the project area.

The approximate locations of the buried historic fishponds are shown in the SHPD GIS - Oahu Map. The map has been reproduced and presented as **Figure IV-8**.



HISTORICAL FISHPONDS NEAR THE PROJECT SITE

(Source: Hawaii Historic Preservation GIS – O'ahu Map)



E. FLORA AND FAUNA

Flora

The proposed project would be confined within the existing road right-of-ways. The project roadways have no concrete curbs or sidewalks along the sides, and the road pavements are bordered by asphalt pavement shoulders, concrete or asphalt driveways, bermuda grass extending from residential lawns, or wayside weeds. The project area is predominantly residential, and the plants observed outside of the road right-of-way included bermuda grass lawns, mock orange, oleander, and panax hedges, coconut trees, african tulip trees, plumeria trees, octopus trees, christmasberry and other ornamental plants. There are no threatened or endangered endemic Hawaiian species of plants known to be located in the vicinity of the project site.

Fauna

Animals such as feral cats, feral dogs, mongooses, rats, and mice may be found in the vicinity of the project site. All of these are introduced mammals; there are no known endemic mammals within the project area. Various birds such as doves, mynahs, cardinals, bulbuls, finches, sparrows, and cattle egrets may be found within the project area. During the winter, migratory golden plovers may be observed. Endemic rare or endangered Hawaiian forest birds or water birds would not be found within the project site. Some species of endangered water birds may be found on wetlands, such as Nuupia Ponds (adjacent to the Kaneohe Marine Corps Base) and the Kawainui Marsh, located to the northeast and southeast, respectively, of the proposed project area. Both areas are located within two miles of the project site.

V. PROBABLE IMPACTS AND MITIGATIVE MEASURES

A. SHORT TERM IMPACTS

Short-term impacts are associated with construction activities to reconstruct, repair, and rehabilitate the defective sewer lines in the Kaneohe Bay Drive area. Short-term impacts include disruption of vehicular and pedestrian traffic, increased noise and exhaust emissions from construction equipment, dust emissions from excavation work, and mud during wet weather. Cured-in-place pipe (CIPP) lining operations cause odors from the resins used in the pipe liners

Traffic Impacts

Traffic impact caused by construction of the proposed new sewer trunk line along Kaneohe Bay Drive is expected to be a significant short-term impact of this project since Kaneohe Bay Drive through the project site has only two traffic lanes. However, construction impacts are minimized and controlled by Federal, State and City and County of Honolulu laws, regulations, policies, and permit requirements.

A key measure to mitigate adverse traffic impacts is to phase the construction into work zones; whereas a limited length of sewer lines would be trenched at any given time. This would reduce traffic impacts because a smaller numbers of vehicles, pedestrians, driveways, and other facilities would be affected at any period of time. The limited work zones also means that access to any particular driveway or fire hydrant would be hindered for a shorter time period.

Another important measure to mitigate adverse traffic impacts shall be the limitation of working hours for sewer construction within road right-of-ways to non-peak traffic hours to prevent long queues of vehicles during rush-hour traffic.

Traffic control plans, coordinated with the City's Department of Planning and Permitting and the State Department of Transportation, shall be developed during the design stage and included as part of the construction plans. Traffic control plans would provide for the safety of workers, movement of traffic and pedestrians, access to properties and utilities through the project work zones. Traffic control plans shall conform to the provisions of Part VI of the Manual on Uniform Traffic control Devices (MUTCD).

Noise Impacts

Short-term noise impacts associated with construction activities and equipment are expected to occur.

Noise from construction activities is regulated by the Administrative Rules of the Department of Health, Chapter 11-46 Community Noise Control.

The regulations require the contractor to obtain a permit to operate construction vehicles, equipment, and tools if the noise levels from construction activities are expected to exceed the allowable noise level specified (for residential zones: 55 dBA between 7 a.m. and 10 p.m. and 45 dBA between 10 p.m. and 7 a.m.). The permit restrictions for construction activities include:

- a. No permit shall allow construction activities creating excessive noise when measured at or beyond the property line for the hours before 7:00 a.m. and after 6:00 p.m. of the same day.
- b. No permit shall allow construction activities, which emit noise in excess of ninety-five dBA at or beyond the property line of the construction site, except between 9:00 a.m. and 5:30 p.m. of the same day.
- c. No permit shall allow construction activities, which exceed the allowable noise levels on Sundays and on holidays stated in the rules. Activities exceeding ninety-five dBA shall be prohibited on Saturdays.

Heavy vehicles used for this project must comply with regulations the administrative Rules of the Department of Health, Chapter 11-42 Vehicular Noise Control of Oahu

Water Quality

Construction impacts related to storm water discharges, wastewater discharges and spills, water quality from dewatering operations, and contaminated materials encountered during excavation work are controlled by the plans, specifications, permitting requirements, and regulations. Water pollution is regulated by Title 11, Administrative Rules of the Department of Health, Chapter 54 Water Quality Standards, and Chapter 55 Water Pollution Control.

Disposal of storm water runoff and dewatering from trench work is strictly regulated and monitored. Dewatering water has to be pretreated and tested before it can be released into the ground or into storm drains. Storm waters from the project site also need to be pretreated before entering the storm drain systems. National Pollutant Discharge Elimination System (NPDES) dewatering and storm water discharge

permits will be obtained from the Clean Water Branch of the State Department of Health permit prior to commencement of construction.

Air Quality

Dust can be expected to be generated at the work site from sewer construction activities such as trench excavation and backfilling, installation of crushed rock pipe bedding, and hauling of excavated materials and crushed rock. Fugitive dust from construction activities are regulated by the Administrative Rules of the Department of Health, Section 11-60.1-33, Fugitive Dust. The contractor will be required to remove excavated material, limit the amount of stockpiled crushed rock at the work site and sweep and wet down the construction site to control generation of dust and keep the construction site reasonably clean. Excavated materials and crushed rock will be covered while being transported, as required by regulations. Prior to trenched areas in roadways and driveways being repaved or restored permanently, the trench will be patched temporarily with asphalt to control dust and erosion. Other dust control measures include grassing and installation of temporary irrigation systems until the grass is established.

Relatively few mechanized equipment will be utilized for the construction work at any given time. A backhoe is usually used to excavate the trench, load trucks with excavated material, and place pipes into the trench. Truck(s) are used to haul excavated material off the work site and bring in crushed rock. Front-end loaders are used to place crushed rock cushion and backfill the trench. A water tanker truck will be operated at sufficient intervals to control dust at the construction site. Other equipment such as compressors and mechanical tampers will also be operated. Since only a few pieces of equipment are used concurrently, exhaust emissions from construction will be relatively small and quickly dissipated.

A temporary odor impact will be generated from CIPP lining operations due to small concentrations of styrene in the atmosphere from resins used in the lining process. Past measurements of styrene concentrations taken at CIPP project sites have been much lower than the OSHA standards for exposure to styrene. While odorous, the low concentrations of styrene have not been known to be hazardous to the health and safety of passers-by or nearby residents; nor have they been considered detrimental to the environment.

Prevailing trade winds along the windward coast area should readily disperse engine exhaust from construction machinery and resin odor emissions from CIPP lining operations.

Construction monitoring by City inspectors serves to ensure conformance to the requirements and regulations mentioned above and minimize these and other adverse construction impacts.

B. LONG-TERM IMPACTS

There are no significant long-term negative impacts upon the environment are anticipated from this sewer project. Construction of this project would provide the beneficial effects of a reliable sewer collection system with adequate carrying capacities to handle current and future design wastewater flows. The project will also provide a trunk sewer line that will be readily accessible for maintenance purposes, requires reduced cleaning frequency and emits minimal odors. The completion of this project will greatly reduce the possibility of sewage spills that are hazardous to the health and safety of the public.

City and County of Honolulu Planning Documents

The proposed project is compatible with and does not conflict with the City's Oahu General Plan and the Koolaupoko Sustainable Communities Plan as discussed under B. LAND CLASSIFICATION AND ZONING in IV. DESCRIPTION OF THE ENVIRONMENT of this environmental assessment report.

The Kaneohe Bay Drive Trunk Sewer Reconstruction project also is compatible with and supports the objectives of the Kailua-Kaneohe-Kahaluu Facilities Plan. This plan, finalized in 1998, is a 20-year plan of work needs for the Kailua-Kaneohe-Kahaluu wastewater treatment plants, pump stations, disposal and collection systems. The facilities plan includes recommendations of improvements to various wastewater facilities.

Long-term Air and Water Quality

Completion of the proposed new trunk sewer line would enhance the air and water quality in the project area. The new trunk sewer would smooth wastewater flows to minimize release of hydrogen sulfides in the wastewater into the pipe air space. Turbulent flow conditions in the existing trunk sewer line have caused significant hydrogen sulfides to be released into the pipe air space, then into the atmosphere through manhole covers. The odorous emissions have led to numerous complaints from the public in the past.

Ground water quality within the project site would be enhanced due to minimizing the potential of sewer system failures that allows wastewater to leak into the surrounding ground and groundwater. The proposed project would correct structural deficiencies of the existing pipes and manholes.

Archaeological

A portion of the proposed Area A project may have an impact on significant subsurface archaeological sites. The State Historic Preservation Division (SHPD)

stated that a historic fishpond (Mahinui) was known to have existed in the vicinity of the proposed sewer trunk line alignment along Kaimalu Place and near the Kaneohe Bay #2 Wastewater Pump Station. Another fishpond was located in the vicinity of the Area B area. See **Figure IV-8**.

A portion of the proposed new trunk sewer line would be installed at depths below sea level and is likely to penetrate below the fill over the old fishpond. Under this condition, archaeological monitoring would mitigate any adverse effects that the trenching work would have on the buried historical sites along Kaimalu Place and at the pump station site. An archaeological monitoring plan will be developed prior to the construction phase of this project. The plan would provide for a qualified archaeological monitor to be present at all trench excavation activities as recommended by the SHPD.

Public Funds

Public funds will be expended to design and construct the project. The project would be constructed under the City's Capital Improvement Program. The project-funding source will be the City's sewer fund.

Over the long term, there will be minimal expenditures for operations and maintenance of the new trunk sewer system. Maintenance costs will decrease because the new and rehabilitated sewer lines would require greatly reduced cleaning frequencies and not be susceptible to structural failures requiring repairs.

Additionally, the new trunk sewer will minimize the potential for catastrophic trunk sewer line failures that would be costly to fix and adversely impact the environment. Trunk sewer failures could cause undermining of the surrounding ground and contamination of a substantial area, including pollution of Kaneohe Bay. Considerable costs would be required to cleanup the areas flooded and contaminated by wastewater spills from the trunk line failures and to repair or replace the failed line. Additional costs would be required to construct a temporary bypass line to divert sewage around the failed section of pipe, and to restore improvements such as roads or structures that would be damaged by the sewer line failures.

Construction Materials

Various construction materials will be required. Reinforced concrete will be used to construct sewer manholes, pipe cradle, and protective jackets. Crushed rock and filter fabrics would be used for pipe cradles. Pipe materials will be polyvinyl chloride (PVC), or vitrified clay. Pipe lining and repair materials will be fabric impregnated with polyvinyl, vinyl ester, or epoxy resins. Asphalt concrete and reinforced concrete will be used for road surface or driveway restoration. Materials would be selected based on their cost effectiveness, hydraulic characteristics, strength, and durability.

VI. AGENCIES CONSULTED, AND APPROVALS REQUIRED

A. AGENCIES CONSULTED

Federal Agencies

Department of the Army
U.S. Army Engineer District, Honolulu
Directorate of Information Management

State Government

Department of Health
Environmental Management Division

Department of Land and Natural Resources
State Historic Preservation Division

Department of Transportation
Highways Division

City and County of Honolulu

Department of Design and Construction

Department of Environmental Services

Department of parks and Recreation

Department of Planning and Permitting

Department of Transportation Services

The information collected from these agencies includes guidelines for environmental assessment, and requirements for environmental clearances and permits.

B. APPROVALS REQUIRED

State Government

Department of Health
Environmental Management Division
Wastewater Branch

Department of Health
State Office of Environmental Quality Control

City and County of Honolulu

Department of Design and Construction

C. PERMITS REQUIRED

State Government

Department of Health
Clean Water Branch--NPDES Permit
Department of Transportation
Highways Division--Storm Water Discharge Permit
& Trenching Permit

City and County of Honolulu

Department of Environmental Services
Regulatory Control Branch--Industrial Wastewater Discharge Permit

Department of Planning and Permitting
Permitting and Inspection Section--Trenching Permit

Department of Transportation Services
Street Usage Section--Street Usage Permit

VII. FINDINGS AND DETERMINATION

A. FINDINGS

Based upon the guidelines and provisions of Title 11, Chapter 200, Environmental Impact Statement Rules and Chapter 343, HRS, the findings of this environmental assessment are:

1. The proposed project does not involve the irrevocable commitment of loss of or destruction of any natural or cultural resources. Past development of the project site into a residential subdivision with paved roads have altered the original condition. However, portions of the project are located over two buried historic fishponds. Excavation work that extends below the fill over former fishpond sites would require archaeological monitoring to mitigate any adverse impacts caused by the trench excavation work.
2. The proposed project does not curtail the range of beneficial uses of the environment. The proposed actions rehabilitate or reconstruct deficient portions of the Kaneohe Bay Drive sewer system to better serve the community in the project area.
3. The proposed project is in accord with, and does not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.
4. The proposed project does not substantially affect the economic or social welfare of the community or state. The rehabilitated sewer system would enhance sewer service for the residential community with less maintenance requirements and with less odorous emissions from wastewater.
5. The proposed project would enhance public health and safety by minimizing potential sewer system failures and wastewater spills within the project area.
6. The proposed project does not involve substantial secondary impacts, such as population changes or effects on public facilities. The project involves the rehabilitation and reconstruction of substandard or defective sewer lines and manholes to provide reliable sewer service with the capacity to handle design flows. The project will not cause additional wastewater flows into the downstream wastewater pump stations or treatment facilities. Wastewater flows would be reduced due to the reduction of groundwater infiltration into the sewer system.

7. The proposed project does not involve the degradation of environmental quality. The rehabilitation and reconstruction of the sewer system improves the environmental quality by minimizing the potential of sewer line collapses, and wastewater spills, and wastewater exfiltration into the surrounding underground area.
8. The proposed project does not cumulatively have a considerable effect upon the environment or involve a commitment for larger actions. The proposed project involves the rehabilitation and reconstruction of existing trunk and collector sewers in the Kaneohe Bay Drive area.
9. The proposed project does not substantially affect rare, threatened, or endangered species or their habitat. Construction activities would be confined mainly to road right-of-ways. There are no known endangered species of flora or fauna in the project area that would be disturbed.
10. The proposed project is expected to temporarily affect air and water quality and raise ambient noise levels during construction, but these effects would be controlled and regulated by the plans and specifications, regulations, permit restrictions, phased construction, and construction monitoring.
11. There are no known environmentally sensitive areas such as flood plain, tsunami zones, geologically hazardous land, estuary, or coastal water immediately near the project sites that will be adversely affected by the project.
12. The proposed project does not affect scenic vistas and viewplanes; the project involves underground utilities.
13. The proposed project does not involve energy consumption. Only gravity sewer lines are involved in this project. The project is anticipated to reduce extraneous water infiltrating the existing system; therefore, less energy will be required for pumping and treating wastewater from the project area.

B. DETERMINATION

Based upon the above findings, the proposed project is not anticipated to significantly impact the environment. Mitigative measures will be implemented as deemed necessary and as required by the governmental agencies. The Department of Design and Construction, City and County of Honolulu has made a Finding of No Significant Impact (FONSI) determination for the proposed project. An Environmental Impact Statement (EIS) document is not required.

VIII. REFERENCES

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Fukunaga and Associates, Inc., Salinity Study Volume 2 - Salinity Study Update Report, May 2001

Hirata & Associates, Inc., Soils Investigation, Kaneohe Bay Drive Trunk Sewer Reconstruction, Kaneohe, Oahu, Hawaii, TMK: 4-4-14, October 3, 2005

APPENDIX

PRE-ASSESSMENT CONSULTATION LETTERS

DEA COMMENT AND RESPONSE LETTERS

PRE-ASSESSMENT CONSULTATION LETTERS

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

January 27, 2005

Thomas Tamanaha
Fukunaga & Associates
1388 Kapiolani Boulevard
Honolulu, Hawaii 96814

Log No.: 2005.0108
Doc. No.: 0501EJ11

Dear Mr. Tamanaha:

SUBJECT: Chapter 6E-8 Historic Preservation Review – Pre EA Consultation for the Kaneohe Bay Drive Trunk Sewer Reconstruction
Kaneohe, Ko'olaupoko, O'ahu TMK: (1) 4-4-013 and 014

Thank you for the opportunity to provide comment during the pre EA phase of this project. The City and County proposes to reconstruct the deteriorated trunk and collection system sewer lines along Kaneohe Bay Drive, Kaimalu Place, Ikenani Drive and an easement off Kaimalu Place. The proposed work includes 1) the construction of 1,570 feet of new 18-inch and 15-inch trunk lines along Kaneohe Bay Drive and Kaimalu Place, 2) connection to an existing 21-inch reinforced concrete pipe influent line into the Kaneohe Bay #2 Wastewater Pump Station and 3) reconstruct five 8-inch branch collector sewers and 4) repair and rehabilitate 8 sewer manholes. The proposed ground disturbance for the new line will be at depths ranging from 7 to 12 feet deep.

A review of our records shows that there are no known surface historic sites within the project area. However, the possibility of subsurface archaeological sites does exist. Two fishponds, Mahinui and Kaluoa/Kapuu, were known to exist within the vicinity of a portion of the proposed line near the Kaneohe Bay #2 WWPS and Kaimalu Place. These fishponds are significant for the information on Hawaiian history and prehistory that they are likely to yield. The depth of fill soils covering these fishponds is not known but if the depth of the proposed improvements exceeds the depth of the fill, it is likely that excavation of the sewer line trenches could impact these fishpond sites.

Given the above information, we would recommend that archaeological monitoring be conducted if proposed sewer line excavations go below the depth of the fill above these fishponds. The intent of this monitoring would be to gather sufficient information on these deposits to mitigate adverse effects. If excavations are above the fill over the fishponds, then monitoring would not be needed. Please check the depth of the fill in this area, evaluate whether the sewer line work will go below the fill, and advise our office of your findings. We can then finalize a determination for this project. If you have any questions please call Mary Carney at 692-8027.

Aloha,


Melanie A. Chinen, Administrator
State Historic Preservation Division

EJ:jen

c: Henry Eng, Director, Dept of Plng & Permitting, 650 S. King Street, Honolulu, HI 96813

LINDA LINGLE
GOVERNOR OF HAWAII



PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCE ENFORCEMENT

ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KANOAIAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 98707

- Urgent
- Confidential

FAX TRANSMITTAL

To: Tom Tamanaha Fax: 946-9339

From: Mary Carney Tel: (808) 692-8027
State Historic Preservation Division Fax: (808) 692-8020

Date: 3/8/05

Regarding: Mahiniwi + Kalua (or Kapuu) Fisheries

Comments: state survey office has a map which may be useful to you

No. 4 Oahu Fisheries Kaneohe Bay Section
Kualoa - Waimanalo
Mansarrat Dec. 1913

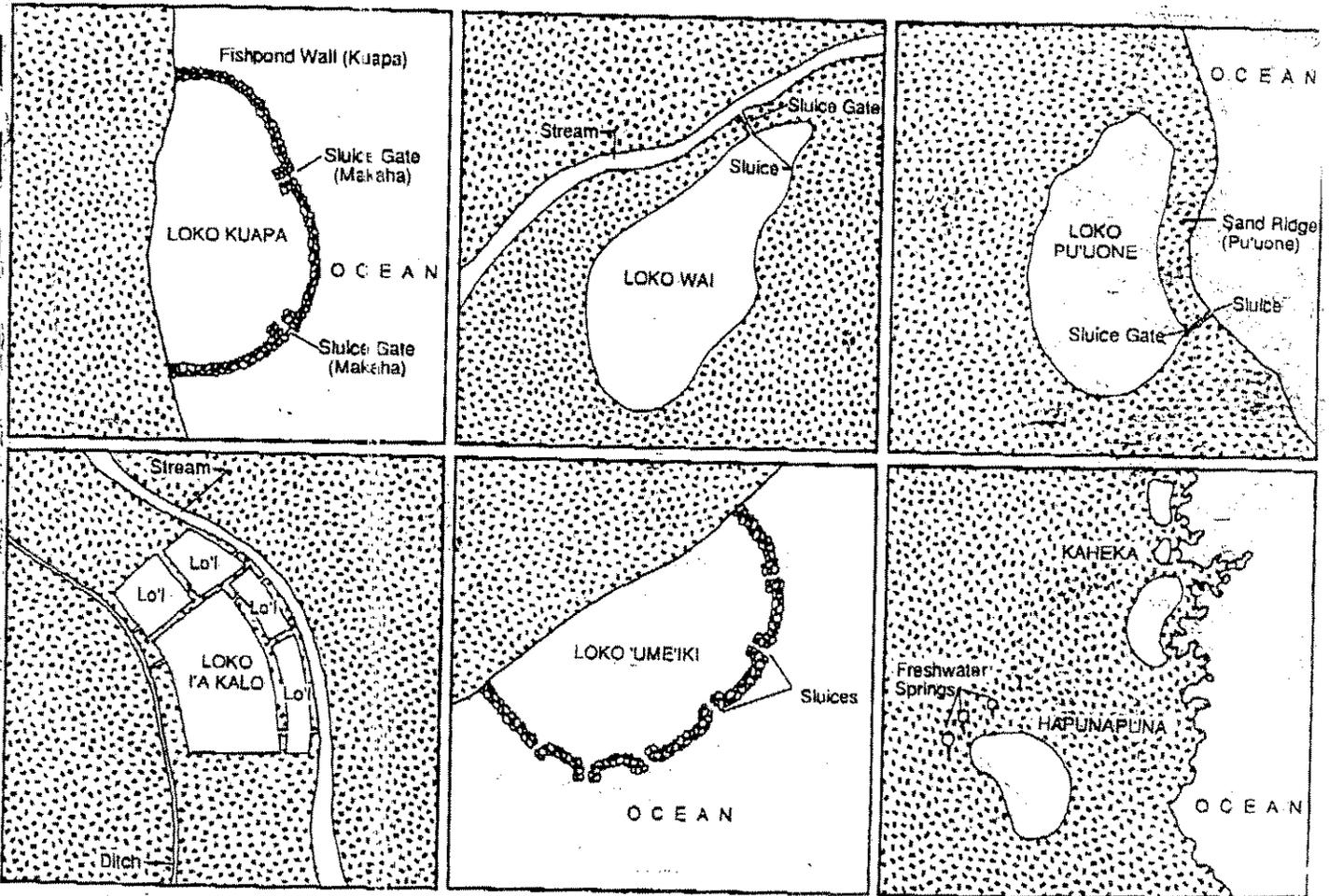
pages faxed, including transmittal: 4

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G-434

Hawaiian Fishpond Study

Islands of O'ahu, Moloka'i and Hawai'i



June 1989

Prepared By:
 DHM Planners, Inc.
 1188 Bishop Street
 Suite 2405
 Honolulu, Hawaii

and:
 Public Archaeology Section
 Applied Research Group
 Bernice Pauahi Bishop Museum
 Honolulu, Hawaii

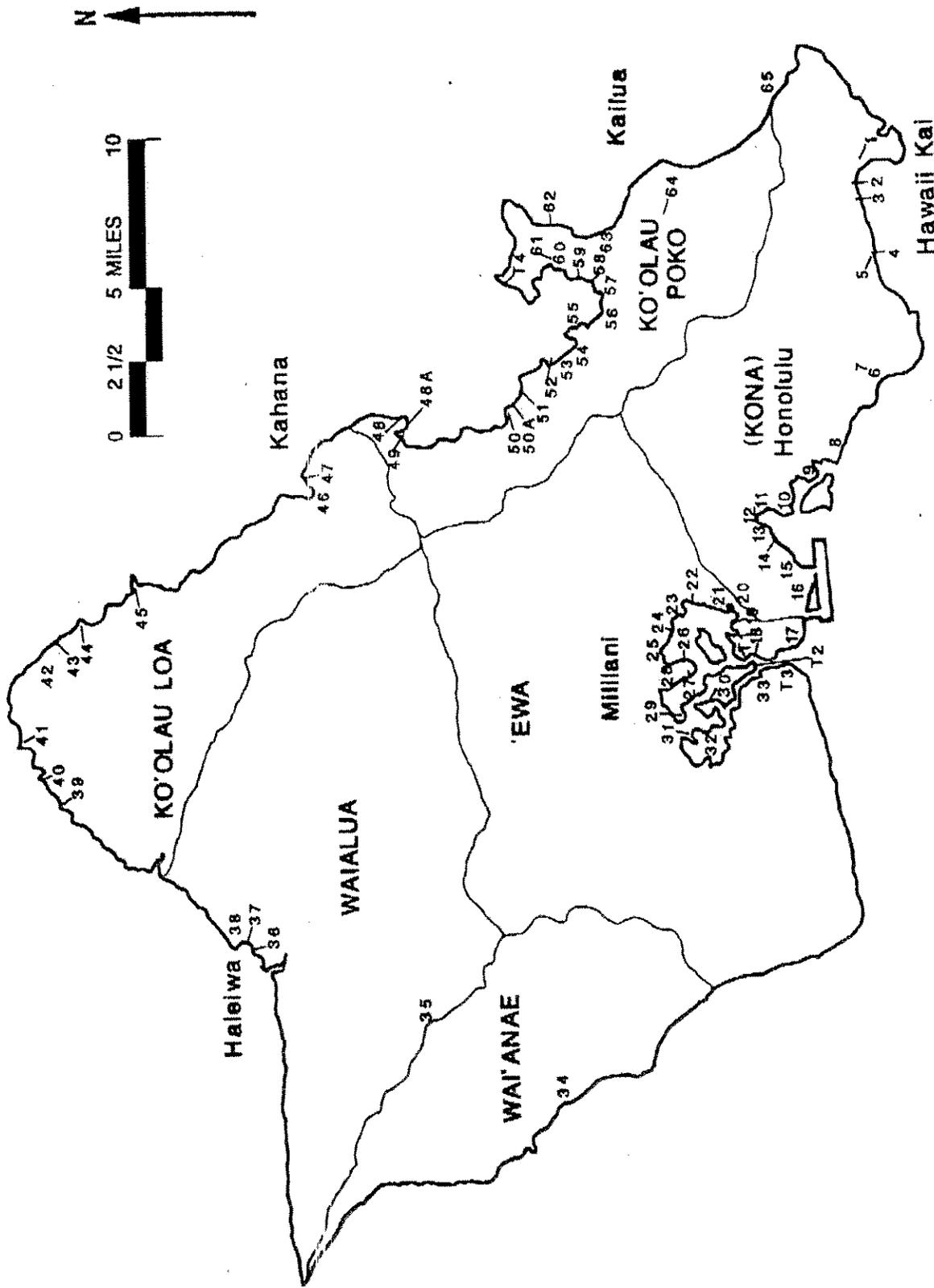
OTAU FISHPONDS

FISHPOND NAME	MAP #	SITE # (50-80-)	AHUPUA'A/TMK	CLASS	TYPE	OWNER
*Waikapoki?	55	10-344	Kane'ohe / 4-5-03:9	IIB	I	
Punalu'u (McAllister #345; BPBM #50-Oa-G5-14)	55	none	Kane'ohe / 4-5-58	III	I	
*Waikalua (McAllister #350a; BPBM #50-Oa-G5-9)	56	10-349	Kane'ohe / 4-5-30:1 (por)	IIA	I	P
Keana	56	none	Kane'ohe /	III	I	
Kalokohanahou (McAllister #350b; BPBM #50-Oa-G5-9)	57	none	Kane'ohe / 4-5-30:1	III	I	
Mikiola (McAllister #351; BPBM #50-Oa-G5-7)	57	none	Kane'ohe / 4-4-14	III	I	
→ Kaluoa (or Kapu'u) (McAllister #351; BPBM #50-Oa-G5-7)	57	none	Kane'ohe / 4-4-14	III	I	
→ Mahinui (McAllister #351; Bpbm #50-Oa-G5-7)	57	none	Kane'ohe / 4-4-14	III	I	
Kea'alau (McAllister #361; BPBM #50-Oa-G5-6)	58	none	Kane'ohe / 4-4-37	III	I	
Hanaiua (McAllister #362; BPBM #50-Oa-G5-5)	58	none	Kane'ohe / 4-4-06	III	I	
Papa'a (McAllister #363; BPBM #50-Oa-G5-4)	59	none	Kane'ohe / 4-4-06:8	III	I	
Nu'upia	60	11-1002	Kane'ohe / 4-4-08:1 (por)	IIB	II	F
Halehou (or Halekou)	61	11-1002	Kane'ohe / 4-4-08:1 (por)	IIB	II	F
Kaluapuhi	62	11-1002	Kane'ohe / 4-4-08:1 (por)	IIB	I	F
Pa'ohua	T4	none	Kane'ohe /	III?	V	
Muliwaiolena	-	none	Kane'ohe /	IV	II	
Kawainui (McAllister #370; BPBM #50-Oa-G6-2)	63	none	Kailua / 4-2-16:1	IIB	III	CCH
Ka'elepulu (McAllister #377; BPBM #50-Oa-G6-13)	64	none	Kailua / 4-2-02:3	IIB	III	P

DHM inc.
Land Use and
Environmental
Planning

O'ahu Fishponds

HAWAIIAN FISHPOND STUDY
Islands of Hawai'i, Moloka'i and O'ahu



LINDA LINGLE
GOVERNOR



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

RODNEY K. HARAGA
DIRECTOR

Deputy Directors
FRANCIS PAUL KEENO
BARRY FUKUNAGA
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2305

October 13, 2006

Mr. Thomas Tamanaha
Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Pre-consultation Draft Environmental Assessment
Kaneohe Bay Drive Trunk Sewer Reconstruction, Phase I and Phase II
TMK: 4-4-13, 14, 16, & 37

Thank you for your notification of the proposed sewer project by the City & County of Honolulu.

Our prior comments of the need to consult with our Highways staff in our response to your earlier notification in 2004 (see attached), regarding the plans for the earlier sewer project (Project No. 01004), are still applicable.

Based on the summary information and maps you provided, it appears the new project does not have a direct impact of construction work taking place in our highway right-of-way. However, the project does approach the Kaneohe Bay Drive/Mokapu Saddle Road intersection. At that intersection our highway facility is Route 65 (Kaneohe Bay Drive to Mokapu Boulevard), extending westerly along Kaneohe Bay Drive from this intersection and easterly along Mokapu Saddle Road.

We request that at least two copies of the forthcoming Draft Environmental Assessment for the subject sewer project be provided to our Highways Division, ATTN: Highways Planning Branch, for further review. While we anticipate that traffic disruption or detouring due to nearby construction work may be the only effect to our highway facility, we want to ensure that any other impacts from the project can be identified by our Highways staff and necessary advance coordination by our staff with your firm and the City and County can be initiated.

Mr. Thomas Tamanaha
Page 2
October 13, 2006

STP 8.2305

We appreciate the opportunity to provide our comments.

Very truly yours,


RODNEY K. HARAGA
Director of Transportation

Attachment

LINDA LINGLE
GOVERNOR



RODNEY K. HARAGA
DIRECTOR

Deputy Directors
BRUCE Y. MATSUI
BARRY FUKUNAGA
BRIAN H. SEKIGUCHI

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

IN REPLY REFER TO:

STP 8.1464

November 12, 2004

Mr. Thomas Tamanaha
Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Kaneohe Bay Drive Trunk Sewer Reconstruction, Project No. 01004
Draft Environmental Assessment Consultation

Thank you for your letter of November 1, 2004, regarding the subject sewer project by the City and County of Honolulu.

Plans for and work schedules on the subject project should be coordinated with our Highways Division. Any project construction within or adjoining our right-of-way along Kaneohe Bay Drive and Mokapu Saddle Road, including project activity in the streets intersecting these two roadways, should be coordinated in advance of the work being initiated.

Please keep our Highways staff apprised of your work efforts to ensure that any affect to our roadway infrastructure and facilities, or traffic impacts and delays are avoided or minimized.

We appreciate the opportunity to provide our comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rodney K. Haraga", with a long horizontal line extending to the right.

RODNEY K. HARAGA
Director of Transportation

DS:km

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
30 SOUTH BERETANIA STREET
HONOLULU, HI 96843



October 9, 2006

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
HERBERT S. K. KAOPUA, SR.
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF

RODNEY K. HARAGA, Ex-Officio
LAVERNE T. HIGA, Ex-Officio

CLIFFORD P. LUM
Manager and Chief Engineer

Mr. Thomas Tamanaha
Fukunaga and Associates, Incorporated
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Your Letter Dated September 29, 2006 Regarding the Draft
Environmental Assessment for Kaneohe Bay Drive Trunk Sewer
Reconstruction, Phase I and Phase II

Thank you for the opportunity to comment on the proposed project.

The Board of Water Supply currently has a design project within the same limits (Kaneohe Bay Drive Water System Improvements). This project currently does not have a tentative construction schedule. The construction schedule should be coordinated to minimize impact to the water system. Please coordinate construction with the Board of Water Supply's Capital Projects Division, Support Section (748-5740) for possible conflicts.

The construction drawings should be submitted for our review and approval.

If you have any questions, please contact Robert Chun at 748-5440.

Very truly yours,

KEITH S. SHIDA
Principal Executive
Customer Care Division

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
330 SOUTH BERETANIA STREET
HONOLULU, HI 96843



JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
HERBERT S. K. KAOPUA, SR.
DAROLYN H. LENDIO

November 10, 2004

RODNEY K. HARAGA, Ex-Officio
LARRY J. LEOPARDI, Ex-Officio

CLIFFORD S. JAMILE
Manager and Chief Engineer

DONNA FAY K. KIYOSAKI
Deputy Manager and Chief Engineer

Mr. Thomas Tamanaha
Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Your Letter of November 1, 2004 on the Draft
Environmental Assessment for the Kaneohe Bay
Drive Trunk Sewer Reconstruction

Thank you for the opportunity to comment on the subject document.

The construction drawings should be submitted for our review and approval. The construction schedule should be coordinated to minimize impact to the water system.

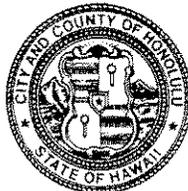
If you have any questions, please contact Joseph Kaakua at 748-5442.

Very truly yours,

KEITH S. SHIDA
Principal Executive
Customer Care Division

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6743
DEPT. WEB SITE: www.honoluluapp.org • CITY WEB SITE: www.honolulu.gov



JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

04WWB160 (TC)
2004/ELOG-2522

November 18, 2004

Mr. Thomas Tamanaha
Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

**Draft Environmental Assessment for
Kaneohe Bay Drive Trunk Sewer Reconstruction**

Thank you for alerting us to your preparation of the draft environmental assessment for the subject project. Please include us as a consulting party.

The proposed DEA should address the policies of the Koolauapoko Sustainable Communities Plan relating sewer infrastructure. Specifically, how does the project address recycling of wastewater and underground storage of wastewater? Also, will improvements be required for WWPS # 2? Are there any impacts associated with the pump station on surrounding residences? Improvements to the pump station may require amending the Public Infrastructure Map before proceeding with the project.

We confirm that an SMA Use Permit is not required for the proposed sewer reconstruction, pursuant to Section 25-1.3(2)(M), ROH, "Installation of underground utility lines and appurtenant aboveground fixtures less than 4 feet in height along existing corridors." In addition, should the removal of old sewer lines within the private properties be required, it could also be considered exempt pursuant to Section 25-1.3(2)(G), ROH, "demolition or removal of structures, except those structures located on any historic site as designated in national or state registers."

If you have any questions, please contact Ms. Tessa Ching at 523-4956.

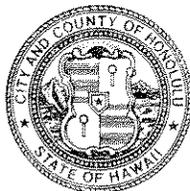
Sincerely yours,

Dennis M. Nishimura
For ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EGC:dl
[336443]

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4529 • FAX: (808) 523-4730 • INTERNET: www.cc.honolulu.hi.us



JEREMY HARRIS
MAYOR

GEORGE "KEOKI" MIYAMOTO
DIRECTOR

ROBERT J. FISHMAN
DEPUTY DIRECTOR

TP11/04-82579R

November 30, 2004

Mr. Thomas Tamanaha
Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Kaneohe Bay Drive Trunk Sewer Reconstruction

In response to your November 1, 2004 letter, we have reviewed the project information provided and we are offering the following comments:

1. The State Department of Transportation should be consulted, as portions of Kaneohe Bay Drive are under their jurisdiction.
2. The draft environmental assessment (EA) should discuss the potential construction phase traffic impacts of the project and any proposed mitigation measures.
3. Traffic control plans should be prepared for each phase of construction work. In order to minimize traffic impacts, project construction should be phased to ensure that work tasks scheduled for a certain day can be started and completed during the same work day. Limiting construction work to off-peak hours should be used as a means to further minimize traffic impacts on the surrounding neighborhood.
4. The area neighborhood board, as well as area residents, businesses, emergency personnel, bus personnel, etc. should be informed and kept apprised of the details of the proposed project and the impacts the project may have on the surrounding area.

We look forward to reviewing the draft EA. Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

A handwritten signature in black ink, appearing to read "George Miyamoto", is written over the typed name and title.

GEORGE "KEOKI" MIYAMOTO
Director



October 16, 2006

Mr. Thomas Tamanaha
Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard - 2nd Floor
Honolulu, HI 96814

Dear Mr. Tamanaha:

**Re: Kaneohe Bay Drive Trunk Sewer
Reconstruction, Phases I and II
(TMKs: 4-4-13, -14, -16 & -37)**

Thank you for the opportunity to comment on the above-referenced project. Hawaiian Electric Company, Inc. (HECO) has no objections at this time.

HECO has existing overhead and underground facilities in the area of the proposed sewer reconstruction, and will need continued access for maintenance purposes. Bruce Watkins of our Construction & Maintenance Department made note of the underground facilities on the drawings that you provided (attached). Please also refer to the attached comments from our Transmission & Distribution Division regarding, among other things, clearances required when working across and parallel to HECO's existing ductlines and during excavation around our utility poles and/or their anchor systems.

Our point of contact for this project is Reece Tokunaga, Transmission & Distribution Division, Engineering Department (543-7004). I suggest dealing directly with Reece to coordinate HECO's continuing input in this project.

Sincerely,

Kirk S. Tomita
Senior Environmental Scientist

Att.
cc (w/ att): R. Tokunaga
P. Nakagawa/C. Chang
R. Noda
B. Watkins/S. Yoshida

Hawaiian Telcom

October 5, 2006

Fukunaga & Associates, Inc.
1388 Kapiolani Blvd., 2nd floor
Honolulu, Hawaii 96814

Attention: Thomas Tamanaha

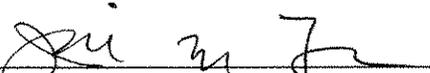
Subject: Draft Environmental Assessment for Kaneohe Bay Drive Trunk Sewer
Reconstruction, Phase I and Phase II

Dear Sir:

Thank you for consulting with us on the preparation for the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction, Phase I and II. Hawaiian Telcom has existing underground telephone lines along Kaimalu and Kuono Pl, and existing aerial lines along Kaneohe Bay Drive, Malukai Pl., Nohokai Pl., and Hulakai Pl. within the project area. Our office would need to review the detailed construction plans in order to determine if there will be any conflicts with the telephone system.

Should you have any questions, please call Garret Hayashi at 840-1438.

Sincerely,



Jill Z. Lee
Section Manager - OSP Engineering

cc: Planning (A-5)
File



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

November 9, 2004

Fukunaga & Associates, Inc.
1388 Kapiolani Blvd., 2nd floor
Honolulu, Hawaii 96814

Attention: Thomas Tamanaha

Subject: Draft Environmental Assessment for Kaneohe Bay Drive Trunk Sewer
Reconstruction

Dear Sir:

Thank you for consulting with us on the preparation for the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction. Verizon Hawaii has existing underground telephone lines along Kaimalu and Kuono Pl, and existing aerial lines along Kaneohe Bay Drive within the project area. Our office would need to review the detailed construction plans in order to determine if there will be any conflicts with the telephone system.

Should you have any questions, please call Garret Hayashi at 840-1438.

Sincerely,

Jill Z. Lee
Section Manager - OSP Engineering

cc: Planning (A-5)
File



P.O. Box 3000
Honolulu, Hawaii 96802-3000

October 13, 2006

Fukunaga and Associates, Inc.
1388 Kapiolani Blvd., 2nd Floor
Honolulu, Hawaii 96814

Attention: Mr. Thomas Tamanaha

Gentlemen:

Subject: Draft Environmental Assessment for Kanehoe Bay Drive Trunk
Sewer Reconstruction, Phase I and Phase II

In response to your letter dated September 29, 2006, we are returning one (1) set of site plan drawings. Based on our review of the prints provided, it has been determined that the project area is currently clear of utility gas facilities.

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 Stason Nishimura at 594-5689.

Sincerely,

Charles E. Calvet, P.E.
Manager, Engineering

CEC:krs
06-177

Attachments

DEA COMMENT AND RESPONSE LETTERS



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

REPLY TO
ATTENTION OF

May 15, 2007

Regulatory Branch

Corps File No. POH-2007-178

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

Subject: Draft Environmental Assessment (EA) for Kaneohe Bay Drive Trunk Sewer
Reconstruction, Kaneohe, Oahu

Dear Mr. Arakaki:

This office has reviewed the draft EA dated April 2007 for the above-referenced project pursuant to Section 10 of the Rivers and Harbors Act (RHA) of 1899 and Section 404 of the Clean Water Act (CWA).

Based on our review of the information provided, it appears that work on the sections of sewer line located in, near, or in the vicinity of, Kaneohe Bay will involve rehabilitation through application of cured-in-place pipe (CIPP) lining. Therefore, we have determined that the aforementioned project would not involve work in and/or placement of dredged and/or fill material into waters of the U.S. under our Section 404 regulatory jurisdiction, nor would this project involve activities subject to the requirements of Section 10. Therefore, a DA permit is not required. If any open trenching type activities are proposed below the Mean Higher High Water (MHHW) line on the shore, a DA permit may be required and this office should be contacted for a determination.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, State, or local statutes, ordinance, or regulations that may affect any proposed work.

If you have any further questions, please contact Ms. Connie Ramsey by telephone at 808-438-2039, by facsimile at 808-438-4060 or by electronic mail at Connie.L.Ramsey@usace.army.mil. Please refer to the file number listed above for future inquiries. Thank you for your cooperation with our regulatory program.

Sincerely,

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

Copy furnished:

Genevieve Salmonson, Office of Environmental Quality Control, 235 South Beretania, Suite
702, Honolulu, HI 96813
Thomas Tamanaha, Fukunaga and Associates, Inc., 1388 Kapiolani Blvd., 2nd Floor, Honolulu,
HI 96814

July 09, 2007

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

Dear Mr. Young:

Subject: Your Letter of May 15, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

We acknowledge that the Department of the Army, U.S. Army Engineer District, Honolulu, has determined that a Department of Army (DA) permit would not be required for this project, based on the draft environmental assessment report. Should the scope of work be revised such that open trench excavation is required below the Mean Higher High Water line on the shore, your office should be contacted to determine whether a DA permit would be required.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.



LINDA LINGLE
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
EPO-07-095

May 25, 2007

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

Dear Mr. Arakaki:

SUBJECT: Draft Environmental Assessment for Kaneohe Bay Drive Trunk Sewer
Reconstruction, Kaneohe, Oahu, Hawaii
TMK: (1) 4-4-013, 4-4-014, 4-4-016 and 4-4-037

Thank you for allowing us to review and comment on the subject application. The application was routed to the various branches of the Environmental Health Administration. We have the following Wastewater Branch and General comments.

Wastewater Branch

The document proposes the relocation and rehabilitation of a portion of the Kaneohe Bay Trunk Sewer and the reconstruction or rehabilitation of defective branch collector sewer lines.

We have no objections to the proposal and concur with the project.

All wastewater plans must meet Department's Rules, HAR Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. If you have any questions, please contact the Planning & Design Section of the Wastewater Branch at 586-4294.

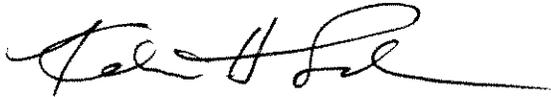
General

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

Mr. Arakaki
May 25, 2007
Page 2

If there are any questions about these comments please contact Jiakai Liu with the Environmental Planning Office at 586-4346.

Sincerely,



KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
WWB
OEQC
Mr. Thomas Tamanaha, Fukunaga Associates, Inc.

July 9, 2007

Mr. Kelvin H. Sunada, Manager
Environmental Planning Office
State of Hawaii,
Department of Health
Post Office Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Sunada:

Subject: Your Letter of May 25, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

We acknowledge and appreciate the concurrence of the Wastewater Branch with this project.

We respond to the general comments referred to in your letter as follows:

- * The U.S. Army Corps of Engineers has been consulted and also sent a copy of the DEA. The Corps of Engineers commented that an Army permit would not be required, based on the DEA.
- * An individual NPDES permit application will be submitted to the Clean Water Branch for construction dewatering for this project.
- * Waters from sewer line leakage tests and curing of the cured-in-place lining of existing pipes are expected to be discharged into the City's wastewater system. The contractor will be required to obtain the appropriate Industrial Wastewater Discharge Permit from the Department of Environmental Services of the City and County of Honolulu.

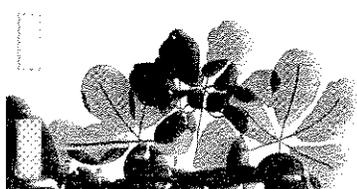
Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.



Thomas Tamanaha, P.E.



Post-it* Fax Note

To: Thomas Tanaka	From: [Signature]
Co./Dept.	Co.
Phone #	Phone #
Fax # 946-9339	Fax #



OFFICE CHAIRPERSON
 BOARD OF LAND AND NATURAL RESOURCES
 COMMISSION ON WATER RESOURCE MANAGEMENT

PETER T. YOUNG
 DEPUTY DIRECTOR

AQUATIC RESOURCES
 BOATING AND OCEAN RECREATION
 BUREAU OF CONVEYANCES
 COMMISSION ON WATER RESOURCE MANAGEMENT
 CONSERVATION AND COASTAL LANDS
 CONSERVATION AND RESOURCES ENFORCEMENT
 ENGINEERING
 FORESTRY AND WILDLIFE
 HISTORIC PRESERVATION
 KAPOOLAWE ISLAND RESERVE COMMISSION
 LAND
 STATE PARKS



STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
 601 KAMOKILA BOULEVARD, ROOM 555
 KAPOLEI, HAWAII 96707

June 14, 2007

Mr. Carl Arakaki
 City and County of Honolulu
 Department of Design and Construction
 650 South King Street, 11th Floor
 Honolulu, Hawai'i 96813

LOG NO: 2007.1560
 DOC NO: 0706JP04
 Archaeology

Dear Mr. Arakaki:

**SUBJECT: Chapter 6E-8 Historic Preservation Review [City/County/State] –
 Draft Environmental Assessment for the
 Proposed Kane'ohe Bay Drive Trunk Sewer Reconstruction Project
 Kane'ohe Ahupua'a, Ko'olaupoko District, Maui Island
 TMK: (1) 4-4-013, 014, 016, and 037 (Portions)**

Thank you for the opportunity to review and comment on the proposed draft environmental assessment, which was received by our staff on May 10, 2007. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division (SHPD); no field inspection was conducted on the subject parcel.

The subject review consists of proposed plans to construct a new trunk line, rehabilitate and/or repair the severely deteriorated existing lines and/or manholes, abandon and replace certain lines, and redirect some flows. We have previously provided preliminary comments for the proposed undertaking and indicated that there are fishponds, which were known to exist within the vicinity of a portion of the proposed work. At the time, we recommended the possibility of implementing an archaeological monitoring program (LOG NO: 2005.0108/ DOC NO: 0501EJ11).

We believe it is possible that additional historic sites and/or previously disturbed sites may be present in the subsurface deposits. Ground altering work associated with the proposed undertaking may have an affect on any historic properties which are present in the subsurface deposit.

Any adverse effect may be mitigated through an archaeological monitoring program. Therefore, we recommend the following conditions be attached to the draft assessment:

- 1) A qualified archaeological monitor (or monitors) shall be present during all ground-altering activities conducted in the project area in order to document any historic properties which may be encountered during the proposed undertaking and to provide mitigation measures as necessary. An acceptable archaeological monitoring plan will

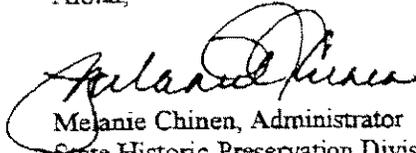
Mr. Carl Arakaki
Page 2

need to be submitted to the State Historic Preservation Division for review, prior to the commencement of any ground-altering activities. An archaeological monitoring plan must contain the following nine specifications: (1) The kinds of remains that are anticipated and where in the construction area the remains are likely to be found; (2) How the remains and deposits will be documented; (3) How the expected types of remains will be treated; (4) The archaeologist conducting the monitoring has the authority to halt the construction in the immediate area of the find in order to carry out the plan; (5) A coordination meeting between the archaeologist and construction crew is scheduled, so that the construction team is aware of the plan; (6) What laboratory work will be done on remains that are collected; (7) A schedule of report preparation; (8) Details concerning the archiving of any collections that are made; and (9) An acceptable report documenting the findings of the monitoring activities shall be submitted to the State Historic Preservation Division for review following the completion of the proposed undertaking.

2) The State Historic Preservation Division (692-8020) shall be notified via facsimile upon the on-set and completion of the proposed undertaking.

Please direct any archaeological questions or concerns to the State Historic Preservation Division at (808) 243-4641.

Aloha,



Melanie Chinen, Administrator
State Historic Preservation Division

JP:

c: Ms. Genevieve Salmonson, Director, State of Hawaii, OEQC FAX (808) 586-4186
Mr. Thomas Tamanaha, Fukunaga and Associates, Inc. FAX (808) 946-9339

July 09, 2007

Ms. Melanie Chinen, Administrator
State Historic Preservation Division
State of Hawaii
Department of Land and Natural Resources
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Dear Ms. Chinen:

Subject: Your Letter of June 14, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

We acknowledge that the State Historic Preservation Division (SHPD) believes that historic sites other than the fishponds may be present within the project area and that archaeological monitoring of all trench excavations is recommended for this project.

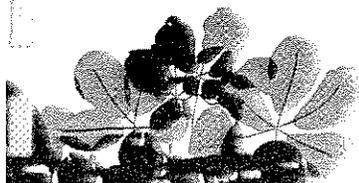
Cultural Surveys Hawaii, Inc. has been engaged to prepare an archaeological monitoring plan, subject to review and approval by you, for this project. The final archaeological monitoring plan will be included in the contract documents for this project.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.

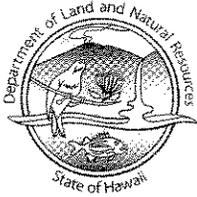

Thomas Tamanaha, P.E.



LINDA LINGLE
GOVERNOR OF HAWAII



ALLAN A. SMITH
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 8, 2007

City & County of Honolulu
Department of Design & Construction
650 South King Street 11th Floor
Honolulu, Hawaii 96813
Attention: Carl Arakaki

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

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Kaneohe Bay Drive Trunk Sewer
Reconstruction, Kaneohe, Oahu, Tax Map Key: (1) 4-4-13; 4-4-14; 4-4-
16; 4-4-37

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources has no comment to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Administrator

July 09, 2007

Mr. Russell Y. Tsuji, Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
Post Office Box 621
Honolulu, Hawaii 96809

Dear Mr. Tsuji:

Subject: Your Letter of May 8, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

We acknowledge that the Department of Land and Natural Resources has no comment to offer on the project.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.



Thomas Tamanaha, P.E.





STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

HRD07/3028

June 4, 2007

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

RE: Draft Environmental Assessment for the Proposed Kaneohe Bay Drive Trunk Sewer Reconstruction, Kāne'ohe, O'ahu.

Dear Mr. Arakaki,

The Office of Hawaiian Affairs (OHA) is in receipt of your May 8, 2007 submission and offers the following comments:

Our staff concurs with the cultural impact mitigation measures found in the above-listed Draft Environmental Assessment so long as three amendments are made. Our office asks that the upcoming Archaeological Monitoring Plan contain the following three provisions in addition to those already proposed:

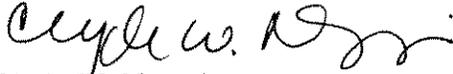
- 1) That the construction crew allow for additional time so that the archaeological monitor(s) can properly and thoroughly record and sample all fishpond and other significant subsurface deposits, and
- 2) That the Archaeological Monitoring Plan stipulate that periodic 'spot-checks' will be conducted in addition to full time monitoring of excavations in known historic subsurface deposits. This will allow for recordation of fishpond boundaries, other potential historic resources and the stratigraphy throughout the project area, and
- 3) That OHA be provided a copy of the Archaeological Monitoring Report upon completion.

OHA asks that, in accordance with Section 6E-46.6, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules, if the project moves forward, and if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity and the State Historic Preservation Division (SHPD/DLNR) shall be contacted.

Carl Arakaki
June 4, 2007
Page 2

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck, Native Rights Policy Advocate, at (808) 594-0239 or jessey@oha.org.

Aloha,



Clyde W. Nāmu'o
Administrator

C: ✓ Thomas Tamanaha
Fukunaga & Associates, Inc.
1388 Kapi'olani Blvd., 2nd Floor
Honolulu, HI 96814

Genevieve Salmonson
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

July 9, 2007

Mr. Clyde W. Namuo, Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Namuo:

Subject: Your Letter of June 4, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

We acknowledge that the Office of Hawaiian Affairs concurs with the recommendation to require archaeological monitoring within the project area. Your request to include three provisions related to the monitoring work will be addressed in the special provisions of the contract documents as follows:

1. The provision for adequate time to allow proper and thorough monitoring, recording, and sampling of significant subsurface deposits will be included.
2. Instead of spot checks, the State Historic Preservation Division (SHPD), has recommended archaeological monitoring for all trench excavations in this project.
3. The requirement for a copy of the final archaeological monitoring report to be provided to the Office of Hawaiian Affairs will be added.

For your information, we have contracted with Cultural Surveys Hawaii, Inc. to prepare an archaeological monitoring plan, approved by SHPD, for this project. The monitoring plan will be included in the contract documents for this project.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.



Thomas Tamanaha, P.E.



BOARD OF WATER SUPPLY

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



May 17, 2007

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF
MARC C. TILKER

LAVERNE T. HIGA, Ex-Officio
BARRY FUKUNAGA, Ex-Officio

CLIFFORD P. LUM
Manager and Chief Engineer

DEAN A. NAKANO
Deputy Manager and Chief Engineer

TO: CARL ARAKAKI
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: KEITH S. SHIDA, PRINCIPAL EXECUTIVE
CUSTOMER CARE DIVISION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR KANEOHE BAY
DRIVE TRUNK SEWER RECONSTRUCTION, KANEOHE, OAHU

The construction drawings should be submitted for our review and approval. The construction schedule should be coordinated to minimize impact to the water system.

If you have any questions, please contact Robert Chun at 748-5443.

cc: Ms. Genevieve Salmonson – OEQC
Mr. Thomas Tamanaha - Fukunaga and Associates

July 09, 2007

Mr. Keith S. Shida, Principal Executive
Customer Care Division
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Shida:

Subject: Your Memorandum of May 17, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

In response to your comments, the construction plans for the proposed project will be submitted to your department for review and approval. The construction schedule will also be coordinated with your department, when necessary, to minimize impacts upon the water system.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.



DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 692-5054 • Fax: (808) 692-5857
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR



LAVERNE HIGA, P.E.
DIRECTOR AND CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 07-469

May 31, 2007

MEMORANDUM

TO: EUGENE C. LEE, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: CARL ARAKAKI

FROM: *Laverne Higa*
LAVERNE HIGA, P.E., DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF FACILITY MAINTENANCE

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
KANEHOE BAY DRIVE TRUNK SEWER RECONSTRUCTION,
KANEHOE BAY DRIVE, OAHU, HAWAII

Thank you for the opportunity to provide comments on the DEA, dated April 2007, for the subject project.

We support the cured-in-place pipe (CIPP) lining method for rehabilitating existing sewer lines. To lessen the impact on project roadways, we request that open trench construction be kept to a minimum and utilized only where less destructive methods may not be feasible.

A problem inherent with open trench construction is adequate compaction of the backfill. Therefore, we request that flowable fill or Controlled Low Strength Material (CLSM) be evaluated and/or considered for use as backfill material. The DEA makes no mention of backfilling methods to be incorporated in the project.

The DEA indicates that several existing pipe segments will be abandoned. We request that these segments be filled with flowable fill or CLSM to minimize the development of voids under the roadway pavement should the deteriorated abandoned pipes collapse.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 484-7697.

cc: Office of Environmental Quality Control
Attention: Genevieve Salmonson, Director

✓ Fukunaga and Associates, Inc.
Attention: Thomas Tamanaha

July 09, 2007

Ms. Laverne Higa, P.E.
Director and Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
1000 Uluohia Street, Suite 215
Kapolei, Hawaii 96707

Dear Ms. Higa:

Subject: Your Memorandum of May 31, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

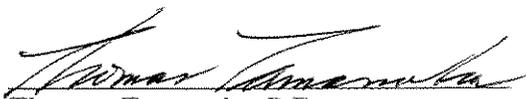
We acknowledge your desire to minimize open trench excavations for the proposed sewer reconstruction project. Trenchless methods of pipe reconstruction were considered during the initial stages of design; but were found to be impractical due to the narrow road shoulders, alignments of existing underground utility lines, and curving roadways of the project area.

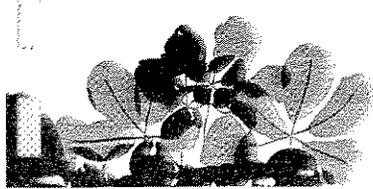
Your request to backfill open trench excavations with flowable fill or CLSM will be considered and may be specified for this project. Likewise, filling of abandoned pipe with flowable fill will be considered and specified if there is the possibility that any of the abandoned pipes might collapse.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.

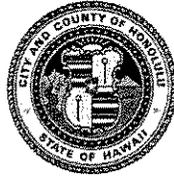

Thomas Tamanaha, P.E.



HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

MUFI HANNEMANN
MAYOR



KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

May 23, 2007

TO: EUGENE C. LEE, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: CARL ARAKAKI, CIVIL ENGINEER

FROM: KENNETH G. SILVA, FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
KANEHOE BAY DRIVE TRUNK SEWER RECONSTRUCTION

In response to a letter dated May 3, 2007, from Fukunaga and Associates, Inc. regarding the above-mentioned project, the Honolulu Fire Department (HFD) reviewed the material provided and requires that the following be complied with for the duration of the project:

1. Maintain fire apparatus access throughout the construction site.
2. Maintain access to fire hydrants. Please notify the HFD's Fire Communication Center at 523-4411 regarding any interruption of the existing fire hydrant system.

Should you have any questions, please call Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 723-7151.

A handwritten signature in cursive script, appearing to read "Kenneth G. Silva".

KENNETH G. SILVA
Fire Chief

KGS/SK:bh

cc: Genevieve Salmonson, Office of Environmental Quality Control
Thomas Tamanaha, Fukunaga and Associates, Inc. ✓

July 09, 2007

Fire Chief Kenneth G. Silva
Honolulu Fire Department
City and County of Honolulu
636 South Street
Honolulu, Hawaii 96813-5007

Dear Chief .Silva:

Subject: Your Memorandum of May 23, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

We acknowledge that the Honolulu Fire Department (HFD) requires compliance with the following conditions for the duration of this project:

1. Maintain fire apparatus access throughout the construction site at all times.
2. Maintain access to fire hydrants. The HFD's Fire Communication Center at 523-4411 shall be notified of any interruption of the existing fire hydrant system function or accessibility.

The above requirements will added to the construction plan notes for this project.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.

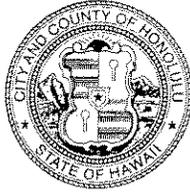

Thomas Tamanaha, P.E.



DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

KAPOLEI HALE • 1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707
TELEPHONE: (808) 692-5561 • FAX: (808) 692-5131 • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR



LESTER K.C. CHANG
DIRECTOR

DANA TAKAHARA-DIAS
DEPUTY DIRECTOR

May 14, 2007

Mr. Thomas Tamanaha, Project Engineer
Fukunaga & Associates, Inc.
1388 Kapiolani Blvd, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Draft Environmental Assessment
Kaneohe Bay Drive Trunk Sewer Reconstruction
Kaneohe, Oahu, Hawaii

Thank you for the opportunity to review and comment on the Draft Environmental Assessment relating to the reconstruction of the Kaneohe Bay Drive Trunk Sewer.

The Department of Parks and Recreation has no comment and as this project will not impact any program or facility of the department, you are invited to remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 692-5454.

Sincerely,


LESTER K. C. CHANG
Director

LKCC:mk
(207694)

July 09, 2007

Mr. Lester K.C. Chang, Director
Department of Parks and Recreation
City and County of Honolulu
Kapolei Hale
1000 Uluohia Street, Suite 309
Kapolei, Hawaii 96707

Dear Mr. Chang:

Subject: Your Letter of May 14, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

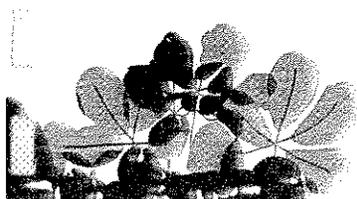
We acknowledge that the Department of Parks and Recreation has no comment and that the project will not impact any of your programs or facilities.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

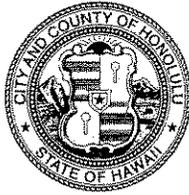
FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.



DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 527-6743
INTERNET: www.honolulu.gov • DEPT. WEB SITE: www.honoluludpp.org



MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANQUE
DEPUTY DIRECTOR

2007/ELOG-1282(ST)

June 18, 2007

Mr. Thomas Tamanaha, Project Engineer
Fukunaga & Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814

Dear Mr. Tamanaha:

Subject: Draft Environmental Assessment
Kaneohe Bay Trunk Sewer Reconstruction (Contract No. F86709)
Kaneohe Bay Drive - Kaneohe
Tax Map Key 4-4-13; 4-4-14; 4-4-16; and 4-4-37

We have reviewed the Draft Environmental Assessment for the above project and have the following comments:

III. Proposed Action

Area A - The existing sewer line between manholes 155597 to 3003545 is near the shoreline, and, therefore, may be within the shoreline setback regulated pursuant to Chapter 23, Revised Ordinances of Honolulu (ROH). To determine if this segment is subject to the shoreline regulations, the shoreline should be delineated on a revised exhibit. Please note that unlike the Special Management Area (SMA), Chapter 25, ROH, there is no exemption for work within the shoreline setback area. Instead, Section 23-1.6, ROH, places strict limits on "repair" activities to nonconforming structures within the shoreline setback area. We recommend that this section be revised to clearly describe the work proposed for this shoreline segment. Cured-in-place pipe (CIPP) work has previously been determined as "repair" of existing underground sewer and water lines. Other activities necessary to implement the (CIPP) alternative (i.e., access trenching, dewatering pits, etc.), however, may require a shoreline setback variance.

Area B - We are aware that no sewer reconstruction is planned for the segment near the shoreline, between manholes 155491 to 155530. Please note that our comments above, regarding compliance with shoreline regulations, are applicable to future rehabilitation/reconstruction activities in this area.

Mr. Thomas Tamanaha, Project Engineer
June 18, 2007
Page 2

IV. B. Land Classification and Zoning

General Plan - A subsection should be added which describes how the project is consistent with the objectives and policies of the Transportation and Utilities section of the General Plan.

City and County of Honolulu Zoning - The section should be expanded to state that the underground municipal sewer lines are considered a "public use" under the Land Use Ordinance (LUO) and, therefore, may occur in any zoning district.

Koolaupoko Sustainable Communities Plan - The discussion regarding the project's conformance with the Koolaupoko Sustainable Communities Plan should be relocated to this section of the DEA. We note that the Wastewater Treatment Section of the Plan is Section 4.3, not 3.3. In addition, the reference to the Collection System should be correctly referenced as subsection 4.3.1 (vs. 3.3.1).

V. Probable Impacts and Mitigative Measures

A. Shore Term Impacts - A more complete description of construction activities should be provided, including estimates of the amount of earthwork anticipated (i.e., cubic yards) for the various segments of the project. The discussion of Water Quality should be expanded to describe actual erosion control, dewatering, and storm water runoff measures that will be used to comply with water quality regulations.

VI. Agencies Consulted, and Approvals Required

B. Approvals Required - This section should be revised to list the actual permits and approvals that will be required for the project, such as trenching and dewatering permits from the DPP, or permits from the U.S. Army Corps of Engineers, etc.

If you have any questions, please contact Steve Tagawa of our staff at 768-8024.

Very truly yours,



 Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:nt

cc: OEQC

G:SteveT/DEAKBtrunksew.com

July 09, 2007

Mr. Henry Eng, FAICP, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: Your Letter of June 18, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project. We have reviewed your comments and respond to your comments as follows:

III. Proposed Action

Area A - Of the sewer lines and manholes mentioned as being close to the shoreline, only Manhole 155706 will be rehabilitated. This work involves the repair of the interior walls of the manhole; this manhole is located outside the shoreline setback line, approximately 70 feet from the shoreline. The remainder of the proposed sewer system rehabilitation work is well outside the shoreline setback. For your information, cured-in-place pipe lining work involves lining of sewer lines by accessing the line through manholes; no trench excavation work is involved.

Area B - We concur that portions of the sewer system in the vicinity of Area B appear to be located within the shoreline setback line. The City needs to address shoreline setback requirements for future reconstruction work that involves ground disturbances within this area.

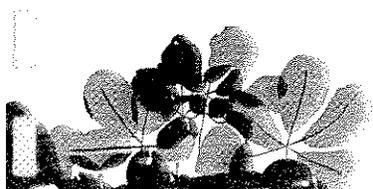
IV. B. Land Classification And Zoning

We agree with your comments and will add will add a reference to the Honolulu General Plan, move the discussion of the Koolaupoko Sustainable Communities Plan into this section, and add to the sub-section titled City and County of Honolulu Zoning.

V. Probable Impacts and Mitigative Measures

A. Short Term Impacts

Detailed data is not available at this stage of the project as plans of the project are still being developed. Items such as excavation quantities would vary greatly as the alignment and depths of the new sewer lines are finalized through coordination with government and utility agencies. Also, actual erosion control, dewatering, etc. measures are yet to be determined in detail as the



Mr. Henry Eng
July 09, 2007
Page 2

plans are still in the development and review phases. The NPDES and State Highway permit review and approval processes for storm water and dewatering discharges will affect the actual mitigation methods to be used. The mitigation measures would also be highly dependent upon the construction methods dictated by the final design of the project.

VI. Agencies Consulted, and Approvals Required

B. Approvals Required

We concur with your comment to include the actual approvals and permits required to construct this project and these will be added to this document.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

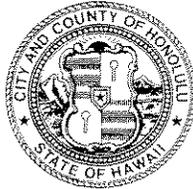
FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulu-pd.org

MUFI HANNEMANN
MAYOR



BOISSE P. CORREA
CHIEF

GLEN R. KAJIYAMA
PAUL D. PUTZULU
DEPUTY CHIEFS

OUR REFERENCE BS-DK

May 10, 2007

TO: EUGENE C. LEE, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: CARL G. ARAKAKI, CIVIL ENGINEER

FROM: BOISSE P. CORREA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

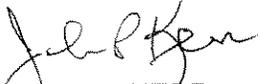
SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
KANEOHE BAY TRUNK SEWER RECONSTRUCTION
CONTRACT NO. F86702 (A)

Thank you for the opportunity to review and comment on the subject project.

This project should have no unanticipated impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Janna Mizuo of District 4 at 247-2166 or Mr. Brandon Stone of the Executive Office at 529-3644.

BOISSE P. CORREA
Chief of Police

By 
JOHN P. KERR
Assistant Chief of Police
Support Services Bureau

cc: Ms. Genevieve Salmonson, OEQC
✓ Mr. Thomas Tamanaha, Fukunaga
and Associates, Inc.

July 09, 2007

Chief of Police Boisse P. Correa
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawaii 96813

Dear Chief Correa:

Subject: Your Memorandum of May 10, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

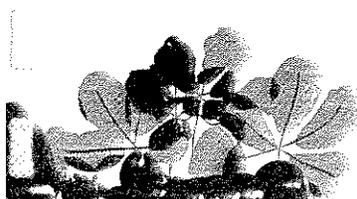
We acknowledge that the Police Department does not anticipate any impacts upon its facilities or operations from this project. The construction specifications will require the contractor to notify the Police Department two weeks prior to performing any work that may affect your department's operations.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.



DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 523-4730 • Internet: www.honolulu.gov

MUFI HANNEMANN
MAYOR



MELVIN N. KAKU
DIRECTOR

RICHARD F. TORRES
DEPUTY DIRECTOR

June 8, 2007

TP5/07-207630R

MEMORANDUM

TO: EUGENE C. LEE, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTN: CARL ARAKAKI

FROM: MELVIN N. KAKU, DIRECTOR

SUBJECT: KANEOHE BAY DRIVE TRUNK SEWER RECONSTRUCTION

Thank you for the May 3, 2007 letter from Fukunaga and Associates, Inc., requesting our review of and comments on the draft environmental assessment for the subject project.

We have the following comments on the document:

1. Traffic control plans should be prepared for each phase of construction work. In order to minimize traffic impacts, project construction should be phased to ensure that work scheduled for a certain day can be started and completed during the same work day.
2. Appropriate project notification should be provided to the area neighborhood board, as well as community residents, businesses, emergency personnel, bus personnel, etc. They should be kept apprised of the details of the proposed project and the impacts the project may have on the local street network area.

Should you have any questions regarding these comments, please contact Ms. Faith Miyamoto of the Transportation Planning Division at Local 8350.

A handwritten signature in black ink, appearing to read "M. Kaku", is written over a horizontal line.

MELVIN N. KAKU

cc: Mr. Laurence K. Lau, Interim Director
Office of Environmental Quality Control

✓ Mr. Thomas Tamanaha, Project Engineer
Fukunaga and Associates, Inc.

July 09, 2007

Mr. Melvin N. Kaku, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Mr. Kaku:

Subject: Your Memorandum of June 8, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

Thank you for reviewing and commenting on the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

We have reviewed the comments from the Department of Transportation Services and respond as follows:

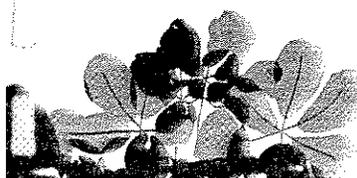
1. Traffic control plans for the various sewer line installations will be included in the construction plans for this project. The work in the streets will be phased to minimize traffic impacts. However, the work would not be able to be completed in one workday because of the depth of excavations, shoring requirements, and the special trench preparation and dewatering requirements, and trench backfilling methods required for the pipe installations in this project.
2. Requirements for notification of neighborhoods, community groups, and government agencies are covered in the special provisions of the contract documents and construction notes on the plans.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.



Hawaiian Telcom

May 11, 2007

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

Attention: Mr. Carl Arakaki

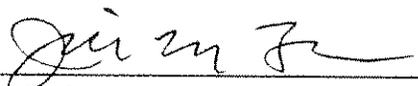
Subject: Draft Environmental Assessment for Kaneohe Bay Drive Trunk Sewer
Reconstruction, Kaneohe, Oahu, Hawaii

Dear Sir:

Thank you for consulting with us on the preparation for the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction. Hawaiian Telcom has existing underground telephone lines along Kaimalu and Kuono Pl, and existing aerial lines along Kaneohe Bay Drive, Malukai Pl and Nohokai Pl within the project area. Please submit the detailed construction plans to our office for review and comment once they become available.

Should you have any questions, please call Garret Hayashi at 840-1438.

Sincerely,



Jill Z. Lee
Section Manager - OSP Engineering

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

Fukunaga and Associates, Inc.
1388 Kapiolani Boulevard, 2nd Floor
Honolulu, Hawaii 96814
Attention: Thomas Tamanaha

File (Kaneohe)

July 09, 2007

Ms. Jill Z. Lee, Section Manager
OSP Engineering
Hawaiian Telcom
P.O. Box 2200
Honolulu, Hawaii 96841

Dear Ms. Lee:

Subject: Your Letter of May 11, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

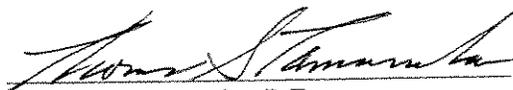
Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

The preliminary construction plans for the proposed project will be submitted for your review and comments. These plans would enable you to determine whether the existing telephone facilities are located in the proximity of the proposed sewer system improvements. The new sewer lines will be designed to minimize impacts upon your facilities.

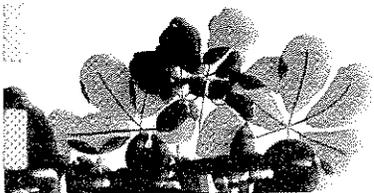
Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.



Thomas Tamanaha, P.E.





P.O. Box 3000
Honolulu, Hawaii 96802-3000

June 8, 2007

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

Attention: Mr. Carl Arakaki

Gentlemen:

Subject: Draft Environmental Assessment
Kanehoe Bay Drive Trunk Sewer Reconstruction, Kaneohe, Oahu, Hawaii

Please be advised that The Gas Company, LLC maintains underground utility gas mains in the project vicinity, which serves commercial and residential customers in the area. 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 Stason Nishimura at 594-5689.

Sincerely,

Charles E. Calvet, P.E.
Manager, Engineering

CEC:krs
07-141

cc: Genevieve Salmonson, Office of Environmental Quality Control
✓Thomas Tamanaha, Fukunaga and Associates, Inc.

July 09, 2007

Mr. Charles E. Calvet, P.E.
Manager, Engineering
The Gas Company
P.O. Box 3000
Honolulu, Hawaii 96802-3000

Dear Mr. Calvet:

Subject: Your Letter of June 8, 2007, Regarding the Draft Environmental Assessment for the Kaneohe Bay Drive Trunk Sewer Reconstruction

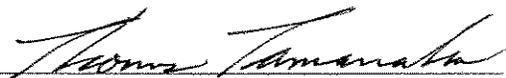
Thank you for reviewing the Draft Environmental Assessment for the proposed Kaneohe Bay Drive Trunk Sewer Reconstruction project.

The preliminary construction plans for the proposed project will be submitted for your review and comments. These plans would enable you to determine whether the existing gas facilities are located in the proximity of the proposed sewer system improvements. The new sewer lines will be designed to minimize impacts upon your facilities.

Should you have any questions, please contact Thomas Tamanaha at 944-1821.

Sincerely,

FUKUNAGA AND ASSOCIATES, INC.


Thomas Tamanaha, P.E.

