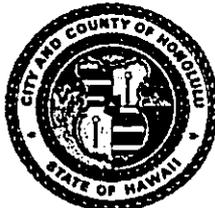


DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
850 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR



RECEIVED SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

C. MICHAEL STREET
DEPUTY DIRECTOR

'90 NOV 30 P2:27

OFC. OF ENVIRONMENTAL QUALITY CONTROL WEP 90-297

November 23, 1990

Office of Environmental Quality Control
State of Hawaii
465 South King Street, Room 104
Honolulu, Hawaii 96813

Gentlemen:

Subject: Akumu Street Relief Sewer,
Enchanted Lake Estates
TMK: 4-2-50

This letter is a Notice of Negative Declaration for the Akumu Street Relief Sewer, Enchanted Lake Estates, Kailua, Hawaii, pursuant to Chapter 343, HRS. City funds will be used to construct this project between the Enchanted Lake Estates Wastewater Pump Station (on Akumu Street) to Keolu Drive. This notice of determination was based on an environmental assessment prepared by Smith, Young & Associates, Inc., after consulting with other agencies and individuals. Four (4) copies of the Final Environmental Assessment are attached. The pertinent data for this notice are as follows:

1. Proposing Agency - Department of Public Works, City and County of Honolulu.
2. Proposed Action - The proposed project consists of constructing a new force main from the Enchanted Lake Estates Wastewater Pump Station to the Keolu Drive trunk sewer. This will require approximately 1800 linear feet of 10-inch pipe and a new manhole constructed in Keolu Drive. A portion of the existing gravity sewer that serves Akumu Street (between the pump station and Akalei Place) will be replaced with a new 10-inch gravity sewer. The existing pumps and standby generator at the pump station will be replaced.

The objective of the project is to stop sewage overflows within the Akumu Street Area. Environmental

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impacts are primarily short term. Construction activities will partially interfere with normal vehicular traffic. Air quality, ambient noise levels and traffic flow primarily along Akumu Street and to a lesser degree, Keolu Drive may be affected during construction. Construction plans will be submitted to the utility companies for review and approval prior to construction to avoid conflicts with underground utilities.

The primary long term impact will be the prevention of future sewage overflows from the existing force main at the Enchanted Lake Wastewater Pump Station and the sewer manholes on Akumu Street.

3. Determination - After reviewing the Environmental Assessment prepared for the project and consulting with other government agencies and community organizations, we have determined that the proposed project will not have a significant impact on the environment, and an Environmental Impact Statement is not required.
4. Reasons for Supporting the Determination - The following findings and reasons support the determination that there will be no significant effect on the environment as a result of this project:
 - Construction will be limited to the right-of-way of Akumu Street, Keolu Drive and the Enchanted Lake Estates WWTP.
 - The proposed action will not detrimentally impact the aesthetics of the area.
 - All impacts associated with the construction are short-term and temporary.
 - No rare or endangered wildlife or flora exists in the construction area.
 - No known archaeological, historical or cultural sites exist in the area.
 - The proposed project will eliminate sewage overflows.
 - The proposed project will satisfy the Consent Agreement, Docket No. 89-CW-EOW-3, Consent

Office of Environmental Quality Control
Page 3
November 23, 1990

Agreement Exhibit "A", entered into by and between the Department of Health, State of Hawaii, complainant, and the City and County of Honolulu, (Enchanted Lake Sewage Pump Station) respondent dated April 27, 1990.

5. Contact Person - Ed Sakamoto
Division of Wastewater Management
Department of Public Works
650 South King Street, 14th Floor
Honolulu, Hawaii 96813-3017
Telephone No. 523-4325

Very truly yours,

C. Michael Street

J. SAM CALLEJO
Director and Chief Engineer

Attachments: 4 copies of EA
and OEQC Form of Publication

cc: Department of General Planning
Department of Land Utilization

WLP

1990-12-08-0A-FRA

FILE COPY

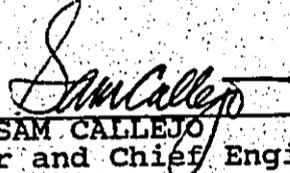
ENVIRONMENTAL ASSESSMENT
FOR
~~AKUMU STREET RELIEF SEWER~~
(ENCHANTED LAKE ESTATES WASTEWATER
PUMP STATION TO KEOLU DRIVE TRUNK)

KAILUA, KOOLAUPOKO, OAHU, HAWAII
TAX MAP KEY: 4-2-50

This document is prepared pursuant to Chapter 343, HRS.

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

RESPONSIBLE OFFICIAL:


SAM CALLEJO
Director and Chief Engineer

11-2-90
DATE

Prepared By:

Smith, Young and Associates, Inc.
3049 Ualena Street Suite 1104
Honolulu, Hawaii 96819

Prepared For:

Division of Wastewater Management

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I. DESCRIPTION OF THE PROPOSED ACTION AND STATEMENT OF OBJECTIVES

The proposed project involves the installation of approximately 1800 feet of 10-inch diameter force main (FM) to connect the Enchanted Lake Estates Wastewater Pump Station directly to the Keolu Drive Trunk Sewer in Enchanted Lake Estates, Kailua (Figures 1 and 5). A new 10-inch gravity sewer will replace a portion of the existing 10-inch gravity sewer pipe. Larger sewage pumps and emergency stand-by generator at the pump station are also required.

The objective of the project is to stop sewage overflows within the Akumu Street area. There have been recurring sewage overflows through manhole covers and backups into the homes along Akumu Street. These overflows occur during periods of heavy rains. To prevent sewage overflow onto Akumu Street during these periods, the Division of Wastewater Management has implemented a means of partially bypassing the sewage from the Enchanted Lake Estates Wastewater Pump Station into the drainage ditch which is adjacent to the pump station. This is necessary since settlement of the existing gravity sewer in Akumu Street has caused a decrease in the design capacity of the existing sewer.

II. AGENCIES CONSULTED IN THE ASSESSMENT PROCESS

The following agencies and organizations were requested to review and comment on the draft environmental assessment.

A. State of Hawaii

- * 1. Department of Health
- 2. Office of Environmental Quality Control
- * 3. Department of Land and Natural Resources
- * 4. Department of Business and Economic Development
- * 5. Office of State Planning

B. City and County of Honolulu

- * 1. Board of Water Supply
- * 2. Department of General Planning
- * 3. Department of Land Utilization
- * 4. Department of Transportation Services
- 5. Kailua Neighborhood Board No. 31
- * 6. Department of Public Works, Division of Engineering
- * 7. Department of Parks and Recreation

C. Federal Agency

- * 1. United States Army Corps of Engineers

D. Others

- * 1. Hawaiian Electric Company
- * 2. Hawaiian Telephone Company
- * 3. GASCO, Inc.
- 4. Oceanic Cablevision

- * Review comments received. See Appendix B.

III. DISCUSSION OF THE ASSESSMENT PROCESS

This environmental assessment is prepared in accordance with Section 11-200-9 of the Environmental Impact Statement Rules, Title 11, Chapter 200, Department of Health, State of Hawaii, pursuant to Chapter 343, Hawaii Revised Statutes.

An assessment at the earliest practicable time is necessary in order to determine and evaluate any significant environmental impacts owing to the proposed action. The potential impacts will be identified and evaluated to determine if the need for an environmental impact statement exists. Other agencies having jurisdiction or expertise are consulted during this assessment process.

IV. DESCRIPTION OF THE AFFECTED ENVIRONMENT

The proposed sewerline is located in the Koolaupoko District within the Akumu Street right-of-way between Keolu Drive and Holoholo Street (See Figures 1 and 3). It is an urbanized area zoned R-5. The tributary area to the proposed relief sewer line is shown in Figure 4. The resident population occupies approximately 450 lots.

The primary affected environment at Akumu Street is an urbanized area. Akumu Street is not a major street but would be considered a collector street. It is used by the residents along the street as well as those residents from the cul-de-sacs that branch off Akumu Street. The nearest major thoroughfare is Keolu Drive. The construction will occur

between the Enchanted Lake Estates Wastewater Pump Station (WWPS) and Keolu Drive and be within the Akumu Street right-of-way. Construction will also occur in Keolu Drive at the intersection of Akumu Street.

The secondary affected environment includes the homes in the subdivision tributary to the Enchanted Lake Estates WWPS (Figure 4). No sewerage problems have been reported in the tributary area. However, the modified force main and WWPS will eliminate the need for bypassing the sewage into Enchanted Lake. The new force main will allow the pump station to operate at an expanded capacity thereby providing better service.

V. GENERAL DESCRIPTION OF THE ACTION'S TECHNICAL, SOCIAL, ECONOMIC AND ENVIRONMENTAL CHARACTERISTICS

A. TECHNICAL CHARACTERISTICS

The proposed project consists of the construction of approximately 1800 feet of ten (10) inch force main sewer at a depth which varies from 4 to 5 feet. A new 10-inch gravity sewer will replace the existing gravity sewer from sewer manhole (SMH) A-6 to SMH A-12 (See Figure 2 for SMH reference).

The new force main will be connected to the existing force main at the WWPS and lie parallel to the existing gravity sewer along Akumu Street. The FM will discharge into the Keolu Drive trunk sewer. The new FM will cross the existing

drainage channel above the high water level and be supported by the existing culvert. Adequate protection will be provided for any exposed pipe.

The existing laterals along Akumu Street will be reconnected to the new gravity sewer. The four sewer branches from Akalei Place, Alahaki Street, and Halula Place (2) will require reconnection to the new 10-inch gravity sewer. Six new standard manholes will be placed in the Akumu Street right-of-way and a new special manhole will be constructed adjacent to the existing sewer manhole in Keolu Drive as required.

B. SOCIAL CHARACTERISTICS

Construction of this project will cause temporary disturbances from the construction activities which will occur in the Akumu Street right-of-way. Access to property and the various cul-de-sacs along Akumu Street will be maintained throughout the course of construction.

The improvements will eliminate health hazards and inconveniences to residents resulting from sewage overflows in the street and into the drainage canal located next to the Enchanted Lake Estates WWPS. The overflows have resulted in the pollution of Enchanted Lake and Kailua Beach. Pollution signs have been posted during the bypass process or spills.

The Development Plan Land Use Map (Figure 4) for the project

area is designated residential and the land use is designated R-5 (Figure 3). The project is shown on the Development Plan Public Facilities Map and is not designated a minor project. The project is designed to serve the parcels as shown on the tributary area map (Figure 4).

C. ECONOMIC CHARACTERISTICS

The project is estimated to cost \$1,120,000 and is to be funded by the City and County of Honolulu. Construction of this project will not increase sewer user charges nor require direct assessments to the residents being served by the improvements.

Construction of the sewer project is tentatively scheduled to start in early 1992 and be completed within 12 months.

D. ENVIRONMENTAL CHARACTERISTICS

Installation of the sewerline will occur within the Akumu Street right-of-way. There are no known natural, historical, or archaeological sites located within the project area. The existing sewer crosses under a drainage channel but no construction is foreseen within this channel. The new pipe crossing will be located above the high water level.

The proposed sewerline will be located underground, therefore there will be no impact on the aesthetic character of this district except during construction. Any pump station improvements will be on the grounds of the existing waste-

water pump station.

There are no known endangered species of flora or fauna located within the project site. Since this is a developed area, construction of this project will have no impact on wildlife.

VI. IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS AND PROPOSED MITIGATION MEASURES

A. PRIMARY SHORT-TERM IMPACTS

Primary short-term impacts will result from construction activities. Use of construction equipment such as backhoes, trucks, hand compactors, and pavers will create noise, dust and exhaust emissions. Construction activities will partially interfere with the flow of vehicular traffic. Parking will be restricted on both sides of Akumu Street during construction. Other utilities such as water, electric, gas and telephone installations may also be affected by the construction activities. Construction plans will be reviewed for coordination purposes by all utility companies affected.

B. PRIMARY LONG-TERM IMPACTS

The primary long term impact will be the prevention of future sewage overflows from the existing force main at the Enchanted Lake WWPS and the sewer manholes on Akumu Street.

C. MITIGATION MEASURES PROPOSED TO MINIMIZE IMPACTS

Construction activities will be controlled by existing laws

and the contract documents (Specifications, Drawings, and Special Provisions) and enforced through field inspection by City and County personnel and/or an authorized representative. Work on all affected streets may be performed only between the hours of 8:30 a.m. and 3:30 p.m. unless special unforeseen reasons require work outside the permitted work hours. Permission will be required from the City Department of Transportation Services and the State Department of Health. The Contractor will be required to comply with the provisions of Title 11, Chapter 43, "Community Noise Control for Oahu," of the State of Hawaii Department of Health Administrative rules.

A Community Noise Permit shall be obtained by the Contractor from the Department of Health for activities which generate noise in excess of 55 dbA. Construction activities which create "excessive noise" will not be allowed at the site before 7:00 a.m. and after 6:00 p.m. of the same day. Construction activities which emit noise in excess of 95 dbA, at or beyond the limits of construction will be restricted to the hours between 9:00 a.m. and 5:30 p.m. Activities which generate noise levels in excess of 95 dbA shall be prohibited on Saturdays. Activities which generate noise in excess of the allowable noise levels are not allowed on Sundays and specific holidays listed in Title 11, Chapter 43, Section 6(e)(1)(A)(B) and (C). Traffic noise from heavy vehicles travelling to and from the project site in the residential area will also comply with the provisions of Title 11,

Administrative Rules, Chapter 42, "Vehicular Noise Control for Oahu." The Director of Health may specify conditions in the noise permit and may modify or revoke a permit at any time in order to protect the physical, mental, or social well-being of the public. During construction operations, the Contractor will be required to comply with Paragraph 11-60-5, Fugitive Dust, Chapter 60, Air Pollution Control, Title 11, Administrative Rules, State of Hawaii, pertaining to dust control. He will also be required to observe all other Federal, State, and City rules and regulations concerning noise, air, and water pollution during the construction period. The prevailing winds are expected to disperse emission concentrations; however, the Contractor will be responsible for the maintenance of all equipment to minimize emissions.

The Contractor will be required to comply with safety precautions and measures in the "Rules and Regulations" Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Public Highways," adopted by the State Highway Safety Coordinator, and the "Manual on Uniform Traffic Control Devices for Streets and Highways, Part IV, Traffic Controls for Highway Construction and Maintenance Operation," U.S. Federal Highway Administration, dated 1981.

Construction equipment will require traffic control measures in the immediate vicinity of construction. Construction

activity on Akumu Street may involve partial obstruction of the street. However, establishing parking controls along both sides of the street, providing a temporary detour via Alahaki Street, and moving construction equipment when residential traffic is low in the area will facilitate traffic flow. The Contractor will obtain a Street Usage Permit from the City Department of Transportation Services prior to commencing construction activities to assure safety, protection, and convenience to the public.

The contract documents will require the Contractor to coordinate his construction operations with the Board of Water Supply, GASCO Inc., Hawaiian Electric Company, Hawaiian Telephone Company and Oceanic Cablevision to prevent or minimize disruption of these utility services.

In the event that any previously unidentified historical or archeological sites or remains such as artifacts, shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or wells are encountered, the Contractor will contact the Historic Sites Office of the Department of Land & Natural Resources. Work in the immediate area shall be delayed until the Historic Sites office is able to assess the impact and make recommendations to mitigative activity.

VII. ALTERNATIVES CONSIDERED

There were five alternatives considered in the Preliminary

Engineering Report. Four of the alternatives require work within the Akumu Street right-of-way and/or the Enchanted Lake Estates WWPS. Alternate Number 3 is recommended.

1. NO ACTION

This is a viable alternative as the present Akumu Street Pump Station, Force Main and Gravity Sewer have sufficient capacity under normal circumstances. It is true that surcharges (standing sewage) occur within the gravity sewer manholes which are contrary to good sewerage design. The gravity system works under average conditions. However, during periods of heavy rain, the Keolu Drive Trunk Sewer surcharges resulting in an overflow of the gravity system in Akumu Street. The cost of this alternative is zero.

The negative aspect of this alternative is that it does not meet the Consent Agreement of April 27, 1990, between the City and County of Honolulu and the State of Hawaii Department of Health and will not change the flow characteristics of the sewer during wet weather flows when Keolu Drive sewers surcharge.

2. NEW 10-INCH GRAVITY RELIEF SEWER

This alternative would provide relief to the existing sewer by splitting the pump discharge at the existing

pressure manhole located in the vicinity of the WWPS. The pump station operation remains the same as at present with the existing pumps discharging 800 gallons per minute with the wet-well operation similar to the present levels of on-off limits.

The new gravity line would be installed between the pressure manhole, located near the Enchanted Lake Estates WWPS, and the sewer manhole near Akalei Place (SMH A-6). These locations are shown in Figure 2. The existing branches from Halula Place, Alahaki Street, and Akalei Place would remain connected to the existing 10-inch line. All existing laterals would remain in place. This alternative is estimated to cost \$300,000.

This alternative is the least costly of the alternatives requiring construction. However, it only improves the surcharge situation between SMH A-6 and SMH A-12. During wet weather flows, the situation is no better than Alternative Number 1.

3. NEW 10-INCH FORCE MAIN TO KEOLU DRIVE, REPLACE GRAVITY SEWER BETWEEN SMH A-6 AND A-12, ALTER THE ENCHANTED LAKE ESTATES WWPS.

The third alternative is to extend the force main to Keolu Drive. The new force main will require approximately 1800 lineal feet of 10-inch pipe to be

placed under Akumu Street. The force main would cross above the drainage channel between Akiu Place and Akalei Place above the high water level. The pipe will be supported by the existing culvert and adequate protection would be provided for the new pipe at this location. A new Special Manhole will be required adjacent to the existing sewer manhole in Keolu Drive to receive the force main discharge.

With the installation of the new force main, there would no longer be the flushing action by the pumped sewage within the gravity sewer from SMH A-12 to SMH A-6. This section will be replaced with a new 10-inch gravity sewer to remove the adverse slope condition of the existing gravity sewer caused by ground settlement. This will require the relaying of one section of Alahaki Street 8-inch sewer to SMH A-8 and the reconnections of Akalei Place and Halula Place sewers as well as some 24 house laterals.

The Enchanted Lake Estates WWPS pumps and standby generator will need to be replaced as the increased length of force main generates the need for additional pressure to push the sewage through the pipe. The increased horsepower to operate the pumps will probably require a larger generator. The preliminary cost estimate for this alternative is \$1,120,000.

4. NEW 10-INCH FORCE MAIN TO SMH A-6, REPLACE THE GRAVITY SEWER BETWEEN SMH A-6 AND SMH A-12, ALTER THE ENCHANTED LAKE ESTATES WWPS INSTALLING LARGER PUMPS AND A NEW STANDBY GENERATOR

This alternative requires the installation of approximately 1000 lineal feet of 10-inch force main. This would bypass the existing problem sewers. However, there would still be a major flow through the gravity sewer from SMH A-6 to Keolu Drive.

Bypassing this segment of sewer would deprive the existing gravity sewer with the periodic flushing action required to maintain the flow. If this alternative were to be implemented, it is recommended that the segment of sewer line from SMH A-12 to SMH A-6 be replaced with a new 8-inch and 10-inch gravity sewer. This would require the reconnection of laterals and connection of the existing branches. As in Alternative 3, the pumps and standby generator would need to be replaced. It is important to note, that although this Alternative is less costly than Alternative 3, it does not compensate for as great a surcharge at Keolu Drive. Therefore, the possibility of an overflow on Akumu Street still exists. The total estimated cost for this alternative is \$925,000.

5. NEW 12-INCH GRAVITY SEWER FROM AKUMU STREET EXISTING
FORCE MAIN TO KEOLU DRIVE

The fifth alternative is to replace the existing 10-inch gravity sewer with approximately 1800 linear feet of new 12-inch gravity sewer. This alternative would involve the replacement of the pipe from the Special Manhole to the trunk sewer at Keolu Drive. All laterals would be cut, plugged and reconnected; the branches from Halula Place, Alahaki Street, Akalei Place, Akiu Place, and Akumu Place would be connected to the new main. The siphon that crosses the drain channel between Akalei Place and Akiu Place would be replaced. This alternative is estimated to cost \$1,185,000.

This alternative does not require the new pumps or stand-by generator of Alternative 3. However, the major flow of the Enchanted Lake Estates WWPS still must be accommodated along Akumu Street in the same manner as it is handled today. The result is a situation subject to surcharge and overflow on Akumu Street when the Keolu Drive sewer surcharges some 3.3 feet during heavy rains.

VIII. DETERMINATION

This assessment has shown that Alternate Number 3 will have no significant impacts on the environment and an Environmental Impact Statement is not required. Therefore,

in accordance with the provisions of Chapter 343, Hawaii Revised Statutes, a Negative Declaration is determined to be in order.

IX. FINDINGS AND REASONS SUPPORTING DETERMINATION

The following findings and reasons support the determination that there will be no significant effect on the environment as a result of this project:

- A. Construction will be limited to the Enchanted Lake Estates WWPS and the rights-of-way of Akumu Street and Keolu Drive.
- B. The proposed action will not detrimentally impact the aesthetics of the area owing to the subsurface nature of the project.
- C. All impacts associated with the construction are short-term and temporary. All short-term impacts will be minimized in accordance with City and County of Honolulu, State of Hawaii, and Federal Laws, Rules and Regulations.
- D. No rare or endangered wildlife or flora exists in the construction area.
- E. No archaeological, historical, or cultural sites exist in the area. However, should any possible archaeological sites be uncovered by the construction work, the Historic

Preservation Office will be notified for direction in determining appropriate measures for evaluating and determining courses of action. This will be specified in the construction contract provisions.

- F. The primary benefit of this proposed project is to eliminate sewage overflows, thus eliminating any safety or health problems and inconveniences to the residents of Enchanted Lake Estates.

- G. The proposed project will satisfy the Consent Agreement, Docket No. 89-CW-EOW-3, Consent Agreement Exhibit "A" entered into by and between the Department of Health, State of Hawaii, complainant, and the City and County of Honolulu, Enchanted Lake Sewage Pump Station, respondent, dated April 27, 1990.

APPENDIX A

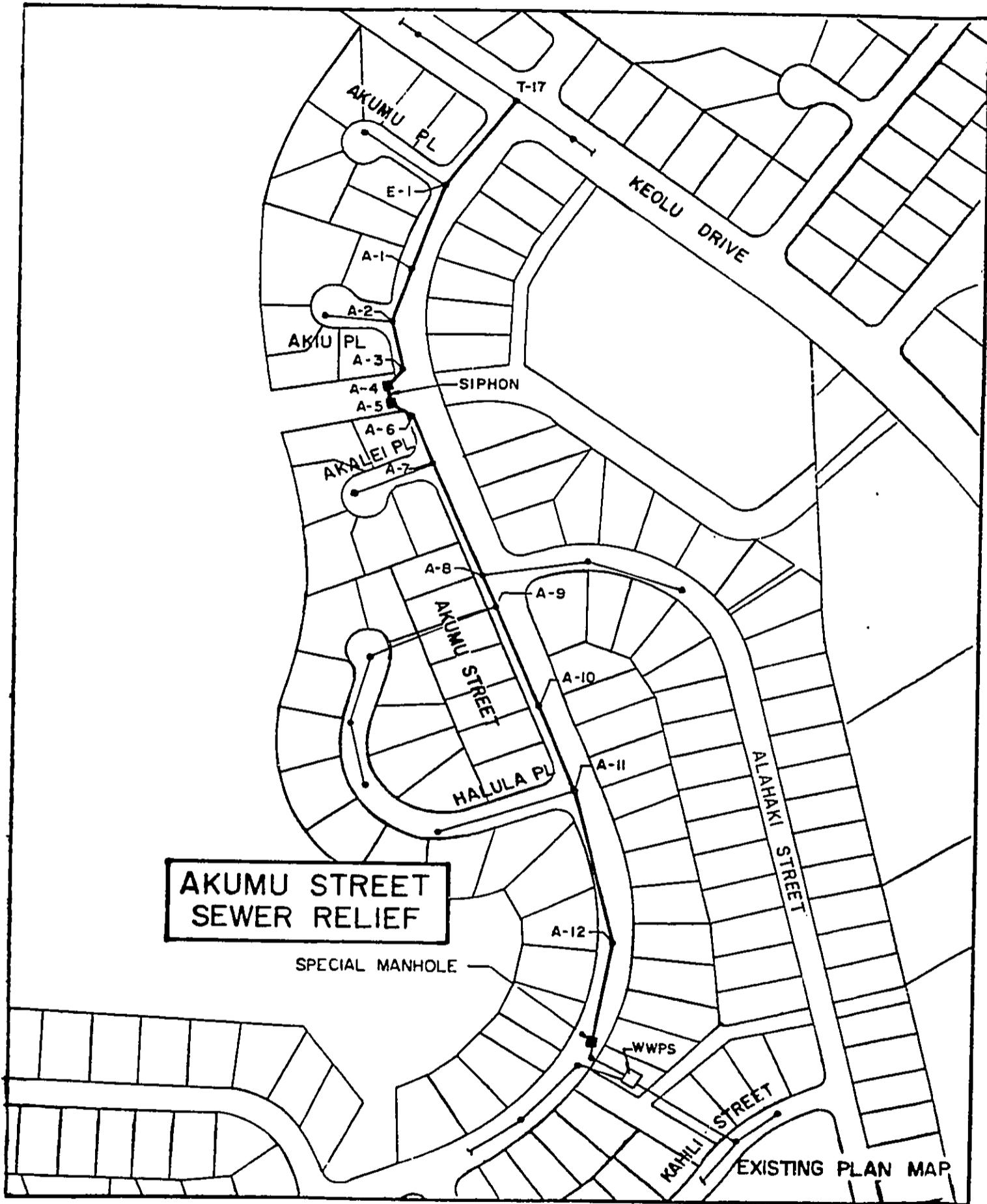


FIGURE 2

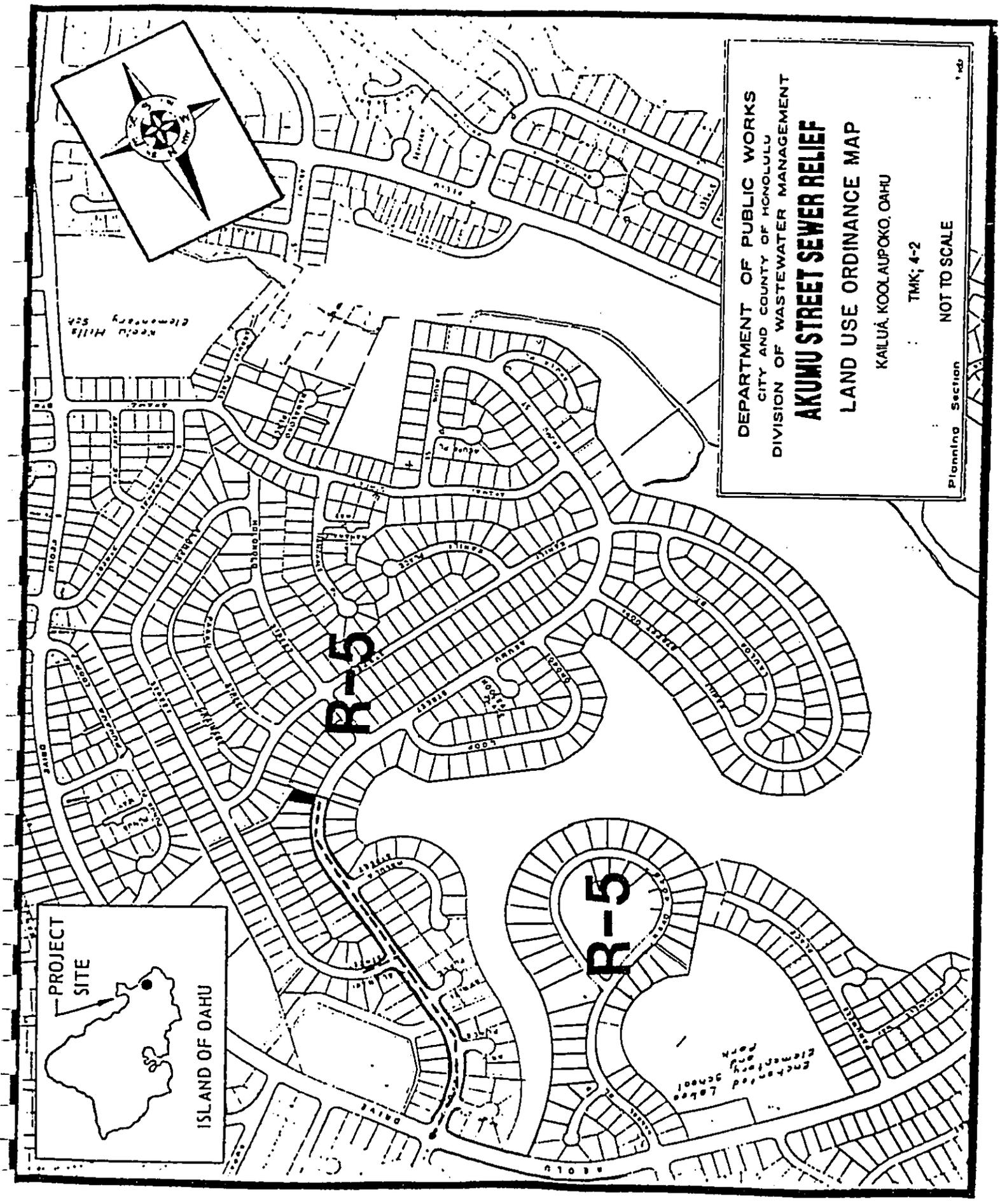
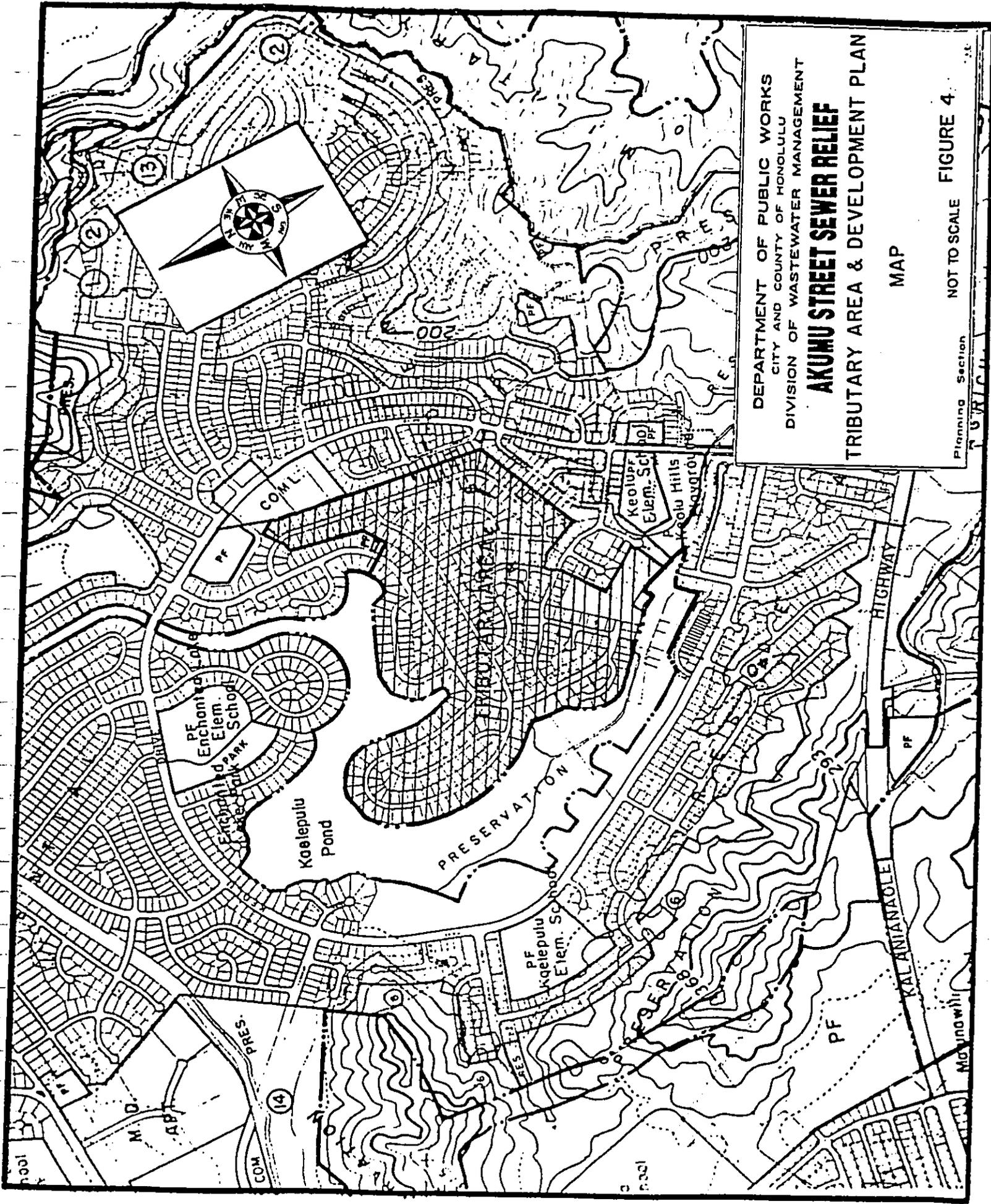


FIGURE 3



DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF HONOLULU
 DIVISION OF WASTEWATER MANAGEMENT

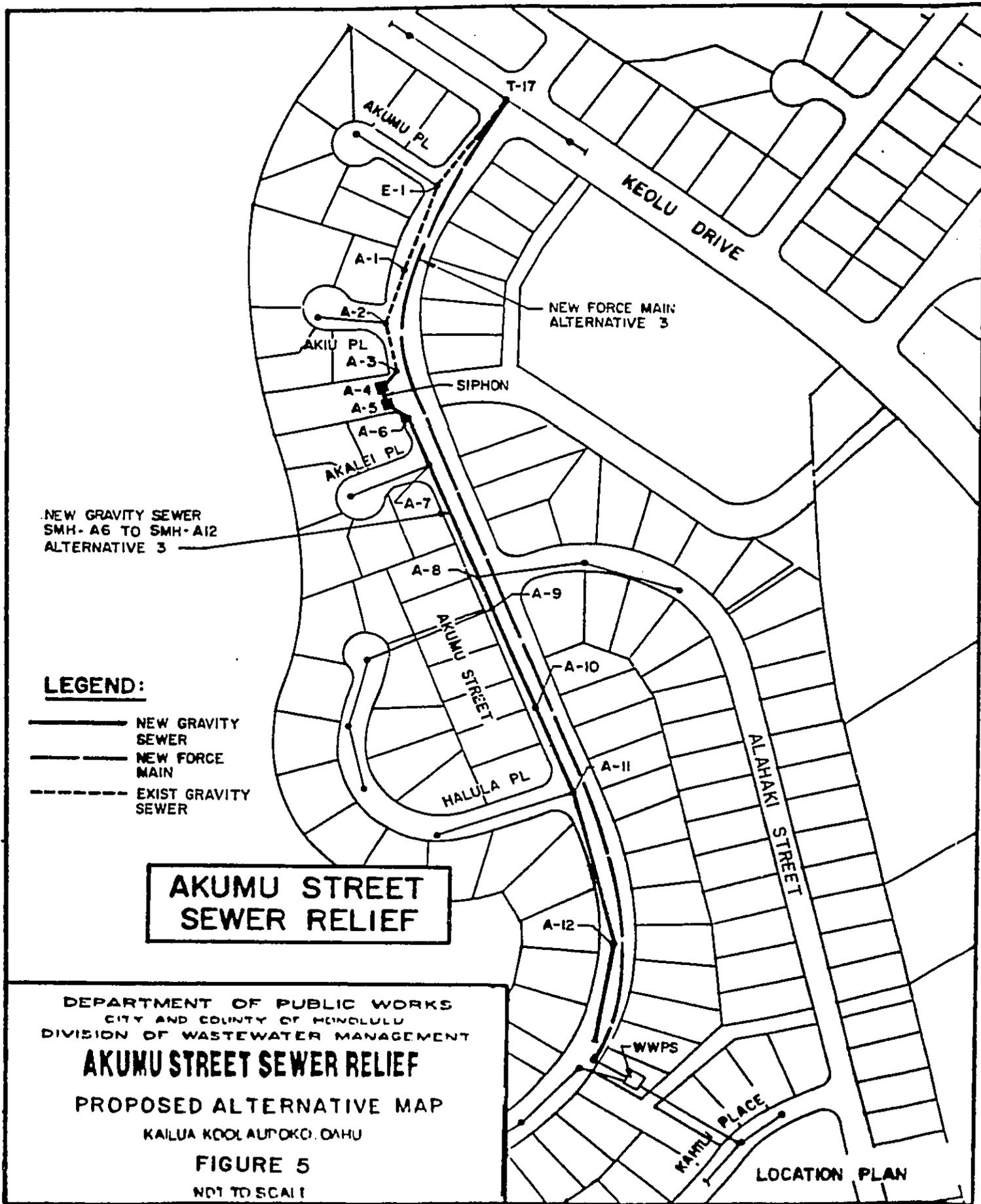
AKUNU STREET SEWER RELIEF

TRIBUTARY AREA & DEVELOPMENT PLAN

MAP

Planning Section NOT TO SCALE

FIGURE 4



LEGEND:

- NEW GRAVITY SEWER
- - - NEW FORCE MAIN
- · · EXIST GRAVITY SEWER

AKUMU STREET SEWER RELIEF

DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF HONOLULU
 DIVISION OF WASTEWATER MANAGEMENT
AKUMU STREET SEWER RELIEF
 PROPOSED ALTERNATIVE MAP
 KAILUA KOOLAUPOKO, OAHU
FIGURE 5
 NOT TO SCALE

LOCATION PLAN

ALTERNATIVE 2 PRELIMINARY COST ESTIMATE

DESCRIPTION	QUANTITY	UNIT COST	TOTAL
1. MOBILIZATION/ DEMobilIZATION	LS	\$ 35,000	\$ 35,000
2. TRENCH EXCAVATION	1050 CY	110	115,500
3. 10" SEWER PIPE	1150 LF	50	57,500
3. STD. MANHOLE, INCLUDING BASE, WALLS, COVER, RUNGS, IN PLACE	5 EA	4,000	20,000
4. CONNECT TO EXIST MANHOLE	2 EA	2,000	4,000
5. PAVEMENT REPAIR	400 SY	20	8,000
6. RECONSTRUCT SPECIAL SMH	LS	8,000	<u>8,000</u>
		TOTAL =	\$ 248,000
		20% CONTINGENCY (INCLUDING TRAFFIC CONTROL)	<u>49,600</u>
		TOTAL WITH CONTINGENCY	\$ 297,600
		SAY	\$ <u>300,000</u>

ALTERNATIVE 3 PRELIMINARY COST ESTIMATE

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>TOTAL</u>
1. MOBILIZATION/ DEMobilIZATION	LS	\$100,000	\$ 100,000
2. FORCE MAIN TRENCH EXCAVATION	900 CY	110	99,000
3. 10" FORCE MAIN PIPE	1,800 LF	60	108,000
4. STREAM CROSSING	LS	30,000	30,000
5. SPECIAL DISCHARGE MH @ KEOLU	LS	30,000	30,000
6. CONNECT FM @ WWPS	LS	10,000	10,000
7. GRAVITY SEWER EXCAVATION	1,200 CY	110	132,000
8. TRENCH DEWATERING	LS	50,000	50,000
9. 10" GRAVITY SEWER REPLACEMENT	970 LF	50	48,500
10. STD. SEWER MANHOLES	6 EA	4,000	24,000
11. ALAHAKI STREET EXCAVATION	125 CY	110	13,750
12. 8" SEWER ON ALAHAKI	170 LF	45	7,650
13. TEMPORARY CONN. TO EXIST MH'S	5 EA	5,000	25,000
14. PAVEMENT REPAIR	1,400 SY	25	35,000
15. CUT/PLUG & RECONSTRUCT BRANCH LINES	2 EA	10,000	20,000
16. CUT/PLUG & RECONSTRUCT LATERALS	24 EA	3,000	72,000
17. NEW PUMPS & MOTORS FOR WWPS	2 EA	15,000	30,000
18. INSTALL PUMPS & MOTORS	2 EA	10,000	20,000

19.	VALVES & FITTINGS FOR 2 PUMPS	LS	20,000	20,000
20.	NEW MOTOR CONTROL CENTER, IN PLACE	1 EA	25,000	25,000
21.	NEW STAND-BY GENERATOR, IN PLACE	1 EA	30,000	<u>30,000</u>
			TOTAL = \$	929,900
	20% CONTINGENCY (INCLUDING TRAFFIC CONTROL)			<u>185,980</u>
			TOTAL WITH CONTINGENCY	\$1,115,880
			SAY	<u>\$1,120,000</u>

ALTERNATIVE 4 PRELIMINARY COST ESTIMATE

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>TOTAL</u>
1. MOBILIZATION/ DEMobilIZATION	LS	\$ 75,000	\$ 75,000
2. FORCE MAIN TRENCH EXCAVATION	600 CY	110	66,000
3. 10" FORCE MAIN PIPE	1,150 LF	60	69,000
4. SPECIAL DISCHARGE MANHOLE @ A-6	LS	10,000	10,000
5. CONNECT FM TO WWPS	LS	10,000	10,000
6. GRAVITY SEWER EXCAVATION	1,200 CY	110	132,000
7. TRENCH DEWATERING	LS	50,000	50,000
8. 10" GRAVITY SEWER REPLACEMENT	970 LF	50	48,500
9. STD. SEWER MANHOLES	6 EA	4,000	24,000
10. ALAHAKI STREET EXCAVATION	125 CY	110	13,750
11. 8" SEWER ON ALAHAKI	170 LF	45	7,650
12. TEMPORARY CONN. TO EXIST MH'S	5 EA	5,000	25,000
13. PAVEMENT REPAIR	925 SY	25	23,125
14. CUT/PLUG & RECONSTRUCT BRANCH LINES	2 EA	10,000	20,000
15. CUT/PLUG & RECONSTRUCT LATERALS	24 EA	3,000	72,000
16. NEW PUMPS & MOTORS FOR WWPS	2 EA	15,000	30,000
17. INSTALL PUMPS & MOTORS	2 EA	10,000	20,000
18. VALVES & FITTINGS FOR 2 PUMPS	LS	20,000	20,000

19.	NEW MOTOR CONTROL CENTER, IN PLACE	1 EA	25,000	25,000
20.	NEW STAND-BY GENERATOR, IN PLACE	1 EA	30,000	<u>30,000</u>
			TOTAL	= \$ 771,025
	20% CONTINGENCY (INCLUDING TRAFFIC CONTROL)			<u>154,205</u>
			TOTAL WITH CONTINGENCY	\$ 925,230
			SAY	\$ <u>925,000</u>

ALTERNATIVE 5 PRELIMINARY COST ESTIMATE

<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>TOTAL</u>
1. MOBILIZATION/ DEMobilIZATION	LS	\$100,000	\$ 100,000
2. TRENCH EXCAVATION	2,000 CY	110	220,000
3. TRENCH DEWATERING	LS	150,000	150,000
4. 12" SEWER PIPE	1,650 LF	60	99,000
5. STD. MANHOLES	14 EA	4,000	56,000
6. CONNECT TO EXIST SMH	2 EA	2,000	4,000
7. CUT/PLUG & RECONNECT BRANCH LINES	6 EA	10,000	60,000
8. CUT/PLUG & RECONNECT SEWER LATERALS	41 EA	3,000	123,000
9. INSTALL NEW SIPHON	LS	150,000	150,000
10. PAVEMENT REPAIR	900 SY	25	<u>22,500</u>
		TOTAL	= \$ 984,500
		20% CONTINGENCY (INCLUDING TRAFFIC CONTROL)	<u>196,900</u>
		TOTAL WITH CONTINGENCY	\$1,181,400
		SAY	<u>\$1,185,000</u>

APPENDIX B

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU HAWAII 96813

RECEIVED
OFFICE OF PUBLIC SAFETY



FRANKIE PASK
MAIL ROOM

SEP 5 3 46 PM '90

ALFRED J. THIEDE
DIRECTOR
JOSEPH M. BISHOP, JR.
DEPUTY DIRECTOR

TE-4645
PL90.1.271

90-4497
WLM

FRANKIE PASK
MAIL ROOM

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU HAWAII 96813



SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER
C. MICHAEL STREET
HONOLULU, HAWAII

September 6, 1990

MEMORANDUM

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

FROM: ALFRED J. THIEDE, DIRECTOR

SUBJECT: AKUMU STREET RELIEF SEWER
DRAFT ENVIRONMENTAL ASSESSMENT
THK: 4-2-50

This is in response to your memorandum dated August 13, 1990 requesting our review and comment on the subject assessment. Our concerns are as follows:

1. Construction plans should be reviewed by our department. A traffic control plan showing temporary detours should be included in this plan.
2. The neighborhood board should be informed of the temporary parking restriction along Akumu Street.

Should you have any questions, please contact Lance Watanabe of my staff at 523-4199.

ALFRED J. THIEDE

October 15, 1990

WEP 90-250

Mr. Alfred Thiede, Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

Dear Mr. Thiede:

Subject: Draft Environmental Assessment for
Akumu Street Relief Sewer

Thank you for your memorandum dated September 6, 1990 (file: TE-4645), regarding the subject Environmental Assessment. Construction plans will be submitted to the Department of Transportation Services for review and comment. The plans will include a traffic control plan subject to approval by your department. The contractor will be required to coordinate with your department during construction and public notice will be posted before construction begins.

Very truly yours,

SAM CALLEJO
Director and Chief Engineer

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU HAWAII 96813



August 22, 1990

90-1718
FRANK F. JACOBI
DOYMA B. GOHA, Chairman
JOHN K. TSAI, Vice Chairman
SISTER M. DAVENIA, Clerk, OSI
SAM CALLEJO
EDWARD Y. HIRATA
WALTERO WATSON, Jr.
MAURICE H. YAMASATO
KAZU HAYASHIDA
Manager and Chief Engineer

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
630 SOUTH KING STREET
HONOLULU HAWAII 96813



SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER
C. MICHAEL STREET
HONOLULU, HAWAII

MEP 90-249

October 15, 1990

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

FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: YOUR MEMO DATED AUGUST 13, 1990 REGARDING
THE DRAFT ENVIRONMENTAL ASSESSMENT FOR
AKUMU STREET RELIEF SEWER

We have no objections to the proposed project. We request that the construction plans be submitted to us for our review and approval to assure the protection of our mains in the area.

If you have any questions, please contact Bert Kuiuoka at 527-5235.

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 S. Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Draft Environmental Assessment for
Akumu Street Relief Sewer

Thank you for your memorandum dated August 22, 1990, regarding the subject Environmental Assessment.

Construction plans will be submitted to the Board of Water Supply for review and comment. The contractor will be required to coordinate with the Board of Water Supply during construction.

Very truly yours,

SAM CALLEJO
Director and Chief Engineer

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515 Kamee Street
 PO Box 1109 Honolulu, Hawaii 96812
 Telephone (808) 547-3333
 Telex (RTT) 7430292

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DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
 650 SOUTH KING STREET
 HONOLULU HAWAII 96813



SAM CALLEJO
 DIRECTOR AND CHIEF ENGINEER
 DEPARTMENT OF PUBLIC WORKS

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

Attention: Mr. Sam Callejo
 Director of Chief Engineer

Gentlemen:

Subject: Draft Environmental Assessment for
 Akumu Street Relief Sewer

We refer to your letter of August 13, 1990, reference number WEP
 90-180P, regarding our review of the assessment for the subject
 project.

Please be advised that Gasco maintains an underground gas utility
 system in the project vicinity, which serves a group of customers
 in the area and is interconnected with the utility network in the
 Kailua area. We would appreciate the consideration of your
 planners and consultants during the project planning and design
 process to provide the necessary coordination during construction
 and minimize any potential conflicts with the proposed
 construction.

We thank you for the opportunity to comment on the proposed
 wastewater improvement project. Should there be any questions, or
 if additional information is required, please call me at 547-3574.

Very truly yours,

Edwin N. Sawa
 Edwin N. Sawa
 Manager, Engineering

EMS:glk
 peis4.ens1

September 6, 1990

October 15, 1990

WEP 90-251

Mr. Edwin N. Sawa, Manager
 GASCO, Inc.
 515 Kamee Street
 Honolulu, Hawaii 96814

Dear Mr. Sawa:

Subject: Draft Environmental Assessment for
 Akumu Street Relief Sewer

Thank you for your letter dated September 6, 1990
 (file: peis4.ens1), regarding the subject Environmental
 Assessment.

Construction drawings will be submitted to GASCO, Inc. for review
 and comment. The contractor will be required to coordinate with
 GASCO, Inc., if any gas lines are affected by the proposed
 construction.

Very truly yours,

Sam Callejo
 SAM CALLEJO
 Director and Chief Engineer

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

ENV 2-1
JA/G

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU WDM
670 SOUTH KING STREET
HONOLULU HAWAII 96813 • PHONE 533-8433
90-4736


Wesley A. Bonnet
Manager
Environmental Department

September 7, 1990

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

Dear Mr. Callejo:

Subject: Draft Environmental Assessment for
Akumu Street Relief Sewer

We have reviewed the subject EIS and find the proposed project to have a minimal impact on existing HECO facilities. However, HECO shall reserve further comment pertaining to the protection of existing power lines within the project area until construction plans are finalized.

Sincerely,



An HEC Company



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FRANK PARK
DIVISION

August 15, 1990

LUR/90-5523

DONALD A. CLEGG
DIRECTOR
DEPARTMENT OF LAND UTILIZATION

MEMORANDUM:

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

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

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR
AKUMU STREET RELIEF SEWER
YOUR REFERENCE: WEP 90-180A

We have no comments on the above. A Negative Declaration seems appropriate for the proposed action.


DONALD A. CLEGG
Director of Land Utilization

DAC:ea

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
870 SOUTH KING STREET
HONOLULU HAWAII 96813



DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT
MAILING ADDRESS: PO BOX 2009, HONOLULU HAWAII 96813

JOHN W. WALKER
COUNTY CLERK
BOOBA A. ULIVELLING
DIRECTOR
BANAUA IRIKI
DEPUTY DIRECTOR
LITIA M. HARRIS
DEPUTY DIRECTOR

90-4298 WWM



WALTER M. OZAMA
DIRECTOR
ALVIN LEE AU
DEPUTY DIRECTOR

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August 20, 1990

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

FROM: WALTER M. OZAMA, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR AKUMU STREET RELIEF SEWER
LOCATION: ENCHANTED LAKE ESTATES, KAILUA, OAHU
TAX MAP KEY: 4-2-50 (REF. NO. WEP 90-180)

We have reviewed the Environmental Assessment for the Akumu Street Relief Sewer and have no comment to offer at the present time.

Should you have any questions, please feel free to contact Lester Lai of the Advance Planning Branch at extension 6306.

WALTER M. OZAMA, DIRECTOR

WMO:sj

August 27, 1990

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

Dear Mr. Callejo:

Thank you for the opportunity to comment on the draft Environmental Assessment for Akumu Street relief sewer, however, the Department has no comments to offer at this time.

Sincerely,
Roger A. Ulivelling

After July 1, 1990 the department has changed its name to the Department of Business, Economic Development and Tourism



OFFICE OF STATE PLANNING

Office of the Governor
STATE CAPITAL, HONOLULU, HAWAII 96813 TELEPHONE 535-1100

964654
SEP 13 1990

GTE Hawaiian Tel

Beyond the call
GTE Hawaiian Telephone Company
P.O. Box 2200, Honolulu, HI 96811

September 12, 1990

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

Dear Mr. Callejo:

Subject: Comments on Draft Environmental Assessment
for Akumu Street Relief Sewer
Kaliua, Koolauopoko, Oahu

We have reviewed the draft Environmental Assessment for this project, which is intended to stop sewage overflows within the Akumu Street area. We have no comments to offer at this time.

Thank you for the opportunity to review this project.

Sincerely,

Harold S. Matsumoto
Harold S. Matsumoto
Director

SEP 17 8 37 AM '90

September 12, 1990

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

Subject: Draft Environmental Assessment for
Akumu Street Relief Sewer

Reference: WEP 90-180H

Dear Mr. Callejo:

GTE Hawaiian Telephone has reviewed the subject assessment and agree that the project should have no significant impact on the environment.

Thank you very much for an opportunity to review the draft impact assessment.

Sincerely,

Walter Matsumoto

Walter Matsumoto
Operations Manager
OSP Engineering

WWM 465
qb



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAPER, HAWAII 96861-5400

OPERATIONS DIVISION
SEP 10 1990

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WMM

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

Dear Mr. Callejo:

In response to your August 13, 1990 request, we have reviewed the Draft Environmental Assessment for Akumu Street Relief Sewer, Kailua, Koolaupoko, Oahu, Hawaii, TRK: 4-2-50. The project does not involve any work in waters of the United States, including adjacent wetlands.

Based on this understanding, a Department of the Army permit is not required for the project. If there are any questions on this determination, please contact the Operations Division at 438-9258.

Sincerely,

Stanley T. Arakaki
Stanley T. Arakaki
Chief, Operations Division

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU

70-4553

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU

WMM

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FRANK E. FARR
DIRECTOR

BENJAMIN B. LEE
CHIEF PLANNING OFFICER
ROLAND D. LEBEL, JR.
DEPARTMENT OF GENERAL PLANNING OFFICER

AC 8/90-2279

September 10, 1990

MEMORANDUM

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

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

SUBJECT: AKUMU STREET RELIEF SEWER
DRAFT ENVIRONMENTAL ASSESSMENT

This is in response to your memorandum dated August 13, 1990 requesting our comments on the proposed Akumu Street Relief Sewer project.

We have reviewed the draft environmental assessment and have no comments to offer at this time. We agree that an Environmental Impact Statement is not required for the subject project.

Thank you for the opportunity to review the draft.

B. Lee
BENJAMIN B. LEE
Chief Planning Officer

BBL:js

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JOHN WILSON
DIRECTOR OF HEALTH

905026 WJWM

JOHN WILSON
DIRECTOR OF HEALTH

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OCT 13 AM '90

90-5716
WJWM

STATE OF HAWAII
DEPARTMENT OF HEALTH
HONOLULU, HAWAII 96813
P. O. BOX 2879
October 8, 1990

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HONOLULU, HAWAII 96813
P. O. BOX 271
OCT 15 1990

REF: OCEA:JN

MEMORANDUM

To: Sam Callejo, Director & Chief Engineer
Department of Public Works
City & County of Honolulu

From: Deputy Director for Environmental Health

Subject: Draft Environmental Assessment (DEA)
Akumu Street Relief Sewer

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

Bruce S. Anderson
BRUCE S. ANDERSON, Ph.D.

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

Dear Mr. Callejo:

Subject: Draft Environmental Assessment for the Akumu Street Relief Sewer (MEP 90-1806)

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

A review of our files indicates that this project area has never been archaeologically surveyed or tested. However, we believe that the project will probably have "no effect" on significant historic sites, because the area has been extensively modified by urbanization.

In the draft EA, archaeological concerns are addressed under the following sections: V. D. Environmental Characteristics, page 8; VI. C. Mitigative Measures Proposed to Minimize Impacts, page 12; and IX. E. Findings and Reasons Supporting Preliminary Determination, page 18. We concur with all these statements which note a lack of known historic sites on the parcel and concur to notifying the Historic Preservation Office (548-6408) immediately if any cultural deposits, old structures, or burials are encountered during construction.

Thank you again for your cooperation in this matter. Please feel free to call Jay Lembeck of my staff, in our Office of Conservation and Environmental Affairs (at 548-7837), if you have any questions.

Very truly yours,
William W. Pety
William W. Pety

WILLIAM W. PETY, CHAIRMAN
OFFICE OF CONSERVATION AND ENVIRONMENTAL AFFAIRS
1101 KALANOAU AVENUE, SUITE 200
HONOLULU, HAWAII 96813

File No.: 91-91
Doc. No.: 0046E