

#### August 1, 1995

#### NOTICE OF NEGATIVE DECLARATION Gulick Avenue Relief Sewer

This is a Notice of Negative Declaration for the subject project pursuant to Chapter 343, HRS. The subject project will involve the use of City funds. The notice of determination is based on an Environmental Assessment prepared by Akinaka and Associates, the consultant for the Department of Wastewater Management, City and County of Honolulu. The pertinent data for this notice are as follows:

- Proposing Agency: Department of Wastewater Management, City and County 1. of Honolulu
- Proposed Action: Construction to relieve surcharged sewer lines in 2. Gulick Avenue and Kalihi Street. The work involves construction of relief lines and the repair of existing lines.

Short term environmental impacts caused by construction activities will not significantly affect business, public or private. Ambient noise levels will be reduced to below the State Department of Health daytime limit of 55 dba. Service interruptions will be kept to a minimum and alternate routes for sewage flows will be provided during construction. The contractor will follow State and County regulations for controlling dust and noise, posting warning signs and covering or barricading excavations when required for safety and for providing traffic control if needed.

Long term environmental impacts may include reducing the possibility of spills from surcharged lines and problems associated with structural failures of sewer pipes.

- Determination: Since we have determined that the proposed work will not 3. have a significant impact on the environment, an Environmental Impact Statement will not be prepared. Other agencies and individuals were consulted and the Draft EA was published in the June 8, 1995 OEQC Bulletin. No comments were received.
- Reasons Supporting Determination. Reasons and conclusions supporting 4. the determination are based on the following criteria. The proposed work will not:
  - destroy any archeological, historical or cultural resources;
  - directly affect any rare or endangered species, flora, or fauna; conflict with the State's environmental policies and goals expressed
  - in Chapter 343, HRS; - affect the economic or social welfare of the community or State; - degrate environmental quality.

Contact Person - Cedric Takamoto, Division of Planning & Service Control 650 S. King St., 14th Floor, Honolulu, Hawaii 96813 Telephone No.: 523-4067

LIMTI FELIX B. Director

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DEPARTMENT OF WASTEWATER MANAGEMENT

CITY AND COUNTY OF HONOLULU

## FINAL

ENVIRONMENTAL ASSESSMENT

FOR

## GULICK AVENUE RELIEF SEWER

AT KALIHI, HONOLULU, HAWAII TMK: 1-3-17, 18, 24 TO 26

JULY 1995

**PROPOSING AGENCY:** 

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. . . DEPARTMENT OF WASTEWATER MANAGEMENT CITY AND COUNTY OF HONOLULU 650 SOUTH KING STREET HONOLULU, HAWAII

95 M Date IMTIÀCO FELIX Β.

**RESPONSIBLE OFFICIAL:** 

PREPARED BY:

AKINAKA & ASSOCIATES, LTD. CONSULTING ENGINEERS 250 NORTH BERETANIA STREET, SUITE 300 HONOLULU, HAWAII 96817

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THIS ENVIRONMENTAL DOCUMENT IS SUBMITTED PURSUANT TO CHAPTER 343, HRS

## ENVIRONMENTAL ASSESSMENT GULICK AVENUE RELIEF SEWER

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## TABLE OF CONTENTS

PAGE

1.	INTRODUCTION						
	A. B. C.	PROJECT DESCRIPTION       I-1         PROJECT LOCATION       I-1         PROJECT OBJECTIVES       I-1					
11.	DESC	DESCRIPTION OF PROPOSED PROJECT					
	A. B. C. D.	BACKGROUND AND EXISTING CONDITIONSII-1VISUAL AND TV INSPECTIONII-2PROPOSED IMPROVEMENTSII-2PROJECT FUNDINGII-3					
111.	ENVI	RONMENTAL SETTING					
	A. B. C. D. E. F. G. H.	TOPOGRAPHYIII-1GEOLOGY/SOILSIII-1CLIMATEIII-1BIOLOGYIII-2AIR QUALITYIII-2NOISEIII-2ARCHAEOLOGYIII-2FLOOD HAZARDIII-2					
IV.	SOC	O-ECONOMIC SETTING IV-1					
<b>v</b> .	PROBABLE IMPACTS OF THE PROPOSED ACTION ON THE ENVIRONMENT						
	А. В.	SHORT TERM IMPACTS					
VI.	ADV	ERSE IMPACTS WHICH CANNOT BE AVOIDED VI-1					

i

• • TABLE OF CONTENTS OCTOBER 1994

,

VII.	ALTERNATIVES TO THE PROPOSED ACTION
	A.ALTERNATIVE 2VII-1B.ALTERNATIVE 3VII-1C.ALTERNATIVE 4VII-1D.ALTERNATE CONSTRUCTION METHODSVII-2
VIII.	RELATIONSHIP BETWEEN LOCAL SHORT TERM USES AND MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY
IX.	MITIGATING MEASURES TO MINIMIZE ADVERSE IMPACTS IX-1
Х.	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES
XI.	DETERMINATION XI-1
XII.	REASONS SUPPORTING RECOMMENDED DETERMINATION XII-1
XIII.	LIST OF NECESSARY REVIEW/APPROVALS Xili-1
XIV.	ORGANIZATIONS AND PERSONS CONTACTED XIV-1
XV.	BIBLIOGRAPHY XV-1

TABLE OF CONTENTS rMARCH 1995

ii

• •

1 3		
		EXHIBITS
ұша 		
	1.	LOCATION MAP
	2.	
	3. 4.	EXISTING SYSTEMS MAP ALTERNATIVE 2
Ĺ,	<del>.</del> 5.	ALTERNATIVE 3
3	6.	ALTERNATIVE 4
0		
		TABLES
	1.	COST ESTIMATE FOR ALTERNATIVE 2
()	2.	COST ESTIMATE FOR ALTERNATIVE 3
-	3.	COST ESTIMATE FOR ALTERNATIVE 4
	4.	COST ESTIMATE FOR ALTERNATIVE 2M (INSTALLATION VIA MICRO-TUNNELING)
C		
j		
[]		APPENDICES
J	APPE	ENDIX A AGENCY CONSULTATION REVIEW LETTERS
Ţ.		· · ·
		iii LIST OF EXHIBITS, TABLES, & APPENDICES
		rMARCH 1995
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#### I. INTRODUCTION

## A. PROJECT DESCRIPTION

The proposed project involves relief of Gulick Avenue Sewers. The recommended alternative includes installation of relief sewer lines on: 1) Likelike Highway between Kono and Makuahine Streets, 2) Kalihi Street between Likelike Highway and Akahi Street and, 3) Makuahine Street from Likelike Highway to School Street. Repair and replacement of the existing lines in these areas are also recommended.

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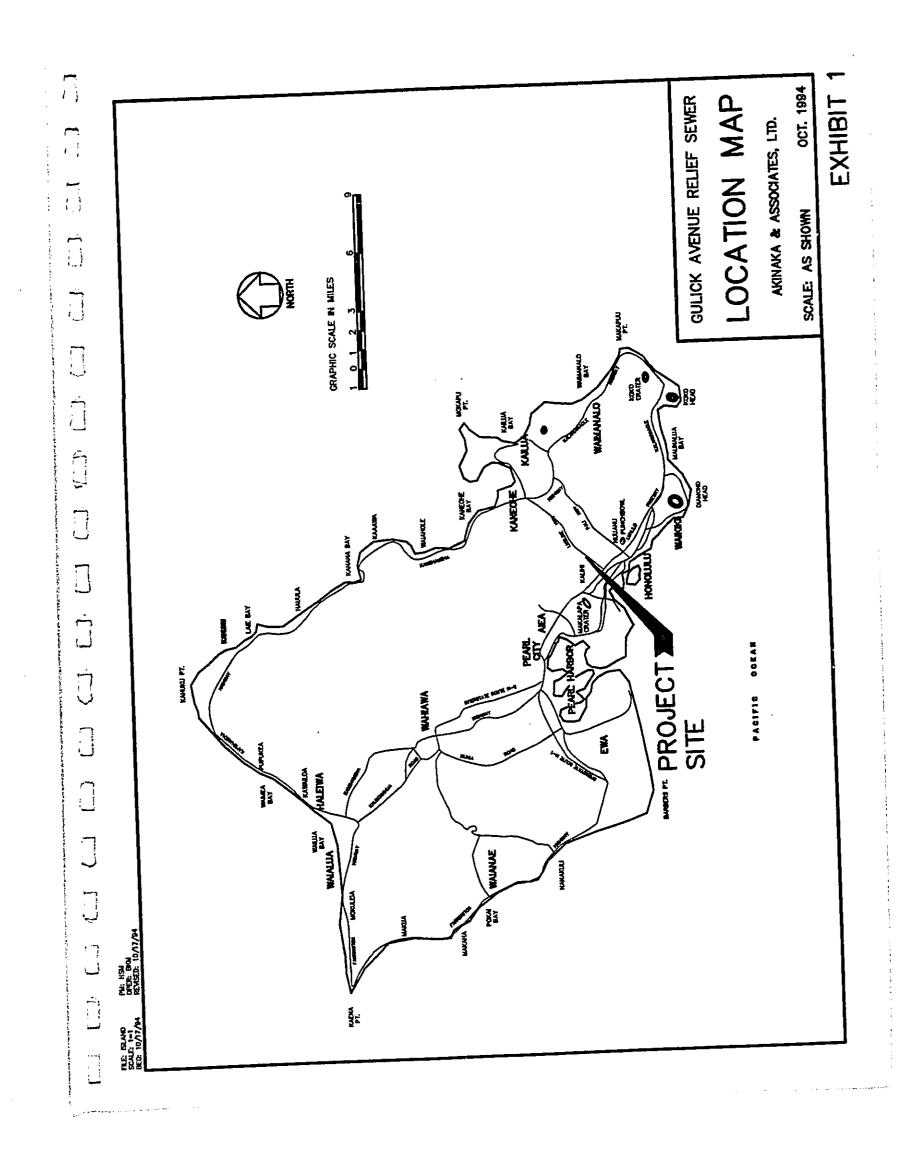
## B. PROJECT LOCATION

**EXHIBIT 1: LOCATION MAP** shows the Project in Southern Oahu at the northern edge of Honolulu. The area is mainly residential with supporting neighborhood - commercial sections. The area is approaching full development as envisioned by the City & County's Primary Urban Center Development Plan (Development Plan).

## C. PROJECT OBJECTIVES

The objective of the project is to increase the system capacity of specific sections of the Hart Street Pump Station wastewater collection system; thereby providing adequate service to the area.

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## II. DESCRIPTION OF PROPOSED PROJECT

## A. BACKGROUND AND EXISTING CONDITIONS

The Islandwide Sewer Adequacy Project, dated September 1990, indicated that sections of the Hart Street Pump Station wastewater collection system were inadequate based on the City & County's Primary Urban Center Development Plan (Development Plan).

The existing wastewater collection system is part of facilities studied by the Islandwide Sewer Adequacy Project and identified therein as Station Code 83 (SI83). SI83 represents a Station Node for School Street at Houghtailing Street and provides technical sewage data. **EXHIBIT 2: VICINITY MAP** shows the existing wastewater system within the Kalihi district.

The existing system under study transports sewage from tributary areas as shown on **EXHIBIT 3: EXISTING SYSTEMS MAP**. Specific sections under study include:

- Kalihi Valley Trunk Sewer Section I-II: 24" gravity sewer along Gulick Avenue, constructed in 1957;
- 2. Gulick Avenue Extension: 8" gravity sewer, constructed in 1922;
- 3. Akahi Street Extension: 8" gravity sewer, constructed in 1955;
- 4. Kalihi Valley Road Sewer Extension "B": 8" gravity sewer along Kalihi Street, constructed in 1925;

## B. VISUAL AND TV INSPECTION

GELCO Services, Inc. was sub-contracted to clean and TV inspect the sewerline, visually inspect the manholes and provide reports covering their findings and recommendations. The limits of work for GELCO were the 18" & 24" sewer line along Gulick Avenue, the 8" sewer line along Gulick Ave. from Ano Lane to Likelike Highway, then continuing through Akahi Street to Kalihi Street and along Kalihi Street to Maliu Street. Their reports are summarized as follows.

Field inspections were completed between February 22, 1993 and February 25, 1993. Inspections indicate that nearly 40% of the sewer line is structurally damaged (1,766 ft. of 4,372 ft. total).

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PROJECT DESCRIPTION OCTOBER 1994

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Some sections (1,280 ft.) have severe cracks. The severely cracked sections cannot be repaired by chemical grouting. Replacement or lining will be required to rehabilitate the system.

In general, the alignment and grades are acceptable. Sags were evident in a few sections but flow was not impeded. Leaks from misaligned joints and service laterals were not significant.

Thirty-One (31) manholes were inspected. Of the thirty-one (31) manholes inspected, ten (10) were moderately deteriorated at the invert. These same manholes require epoxy-cement-type repair for the walls. One (1) other heavily deteriorated manhole requires plastic wall lining.

Engineers Surveyors Hawaii (ESH) was subcontracted to verify manhole invert elevations. Their findings, when compared with as-built grades, indicate that inverts shown on the as-builts are fairly accurate.

#### C. PROPOSED IMPROVEMENTS

The recommended improvements involve installation of sewer relief lines on Likelike Highway between Kono and Makuahine Streets, on Kalihi Street between Likelike Highway and Akahi Street and on Makuahine Street from Likelike Highway to School Street. Repair of the existing lines in these areas is also included. The improvement also includes installation of 800' of replacement sewer line on Kalihi Street between Maliu and Akahi Streets.

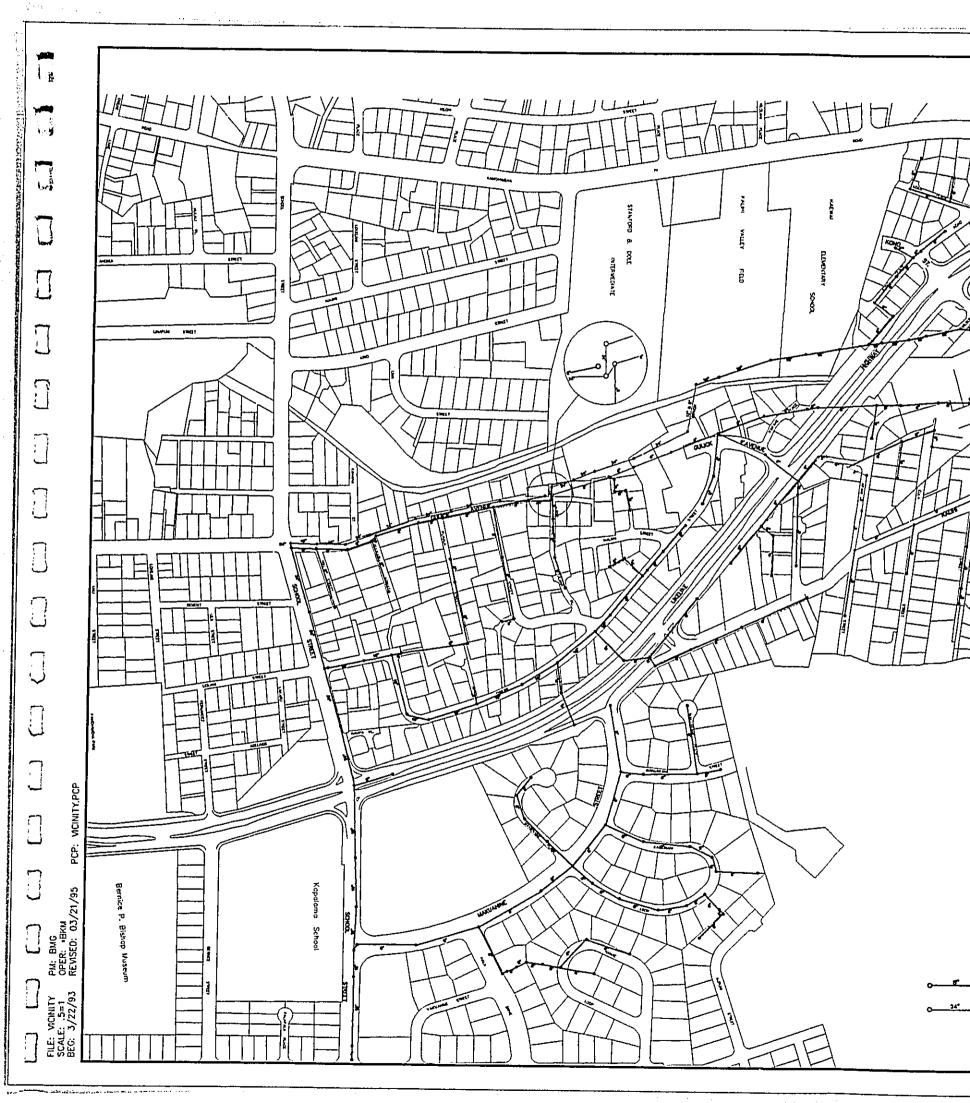
Replacement and relief sewer line construction will require trenching at depths ranging from 6 to 25 feet. Connections to existing laterals will require adjustments within the road right-of-way.

#### D. PROJECT FUNDING

The preliminary construction cost estimate for this project is approximately \$9.1 million. Funding for this project will be provided by the City and County of Honolulu. Construction of this project will not require direct assessments to the residents being served by the improvements.

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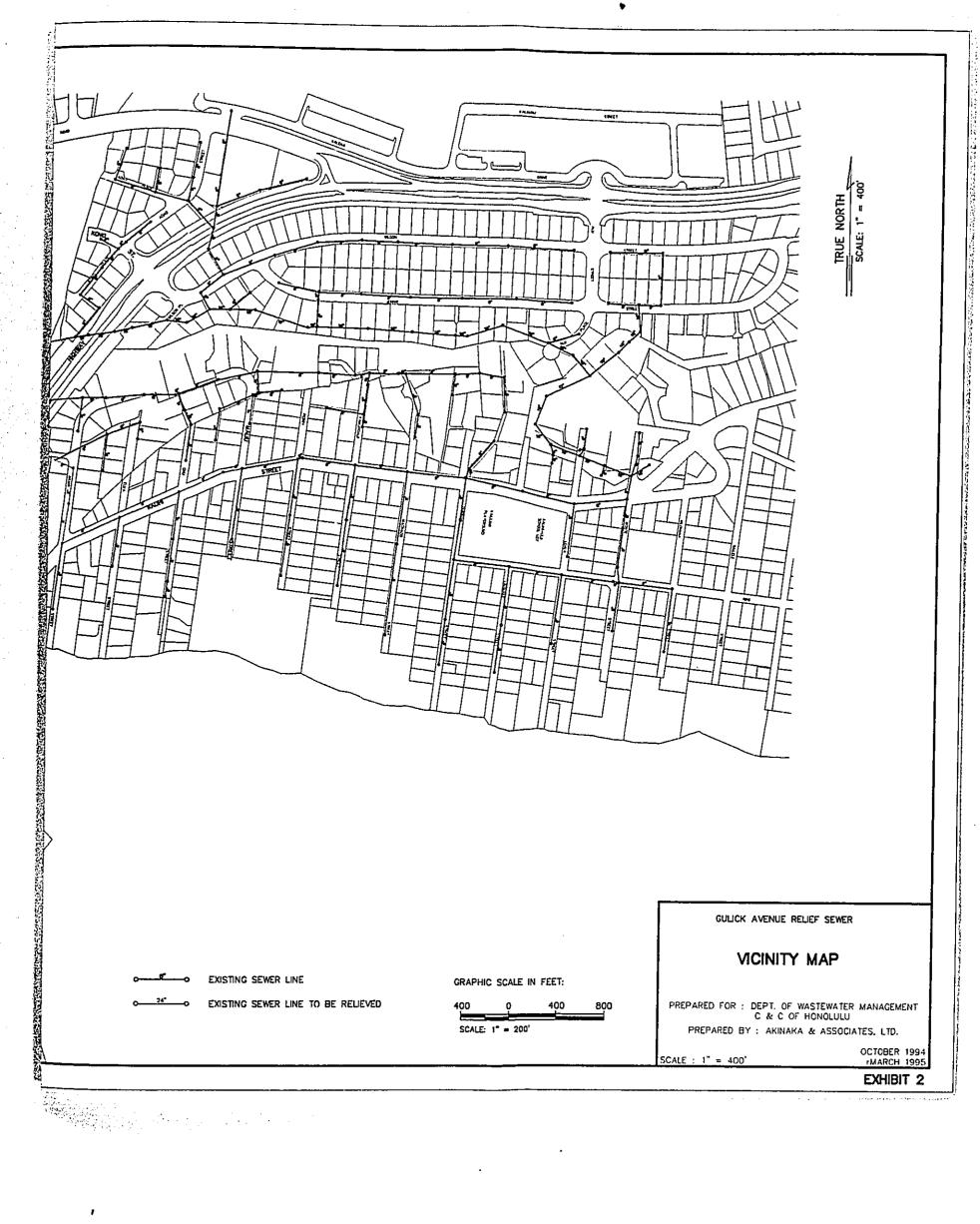
PROJECT DESCRIPTION OCTOBER 1994



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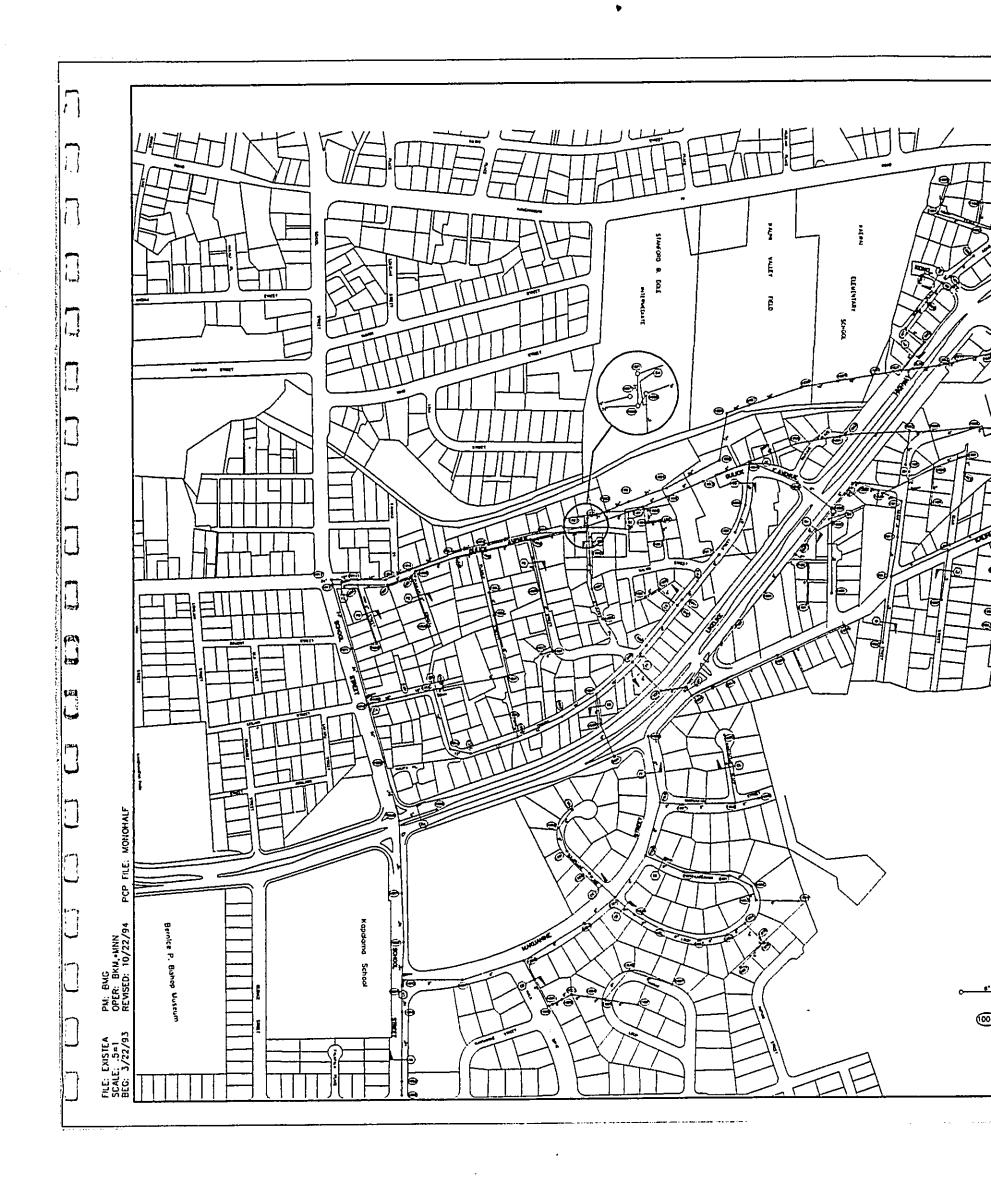
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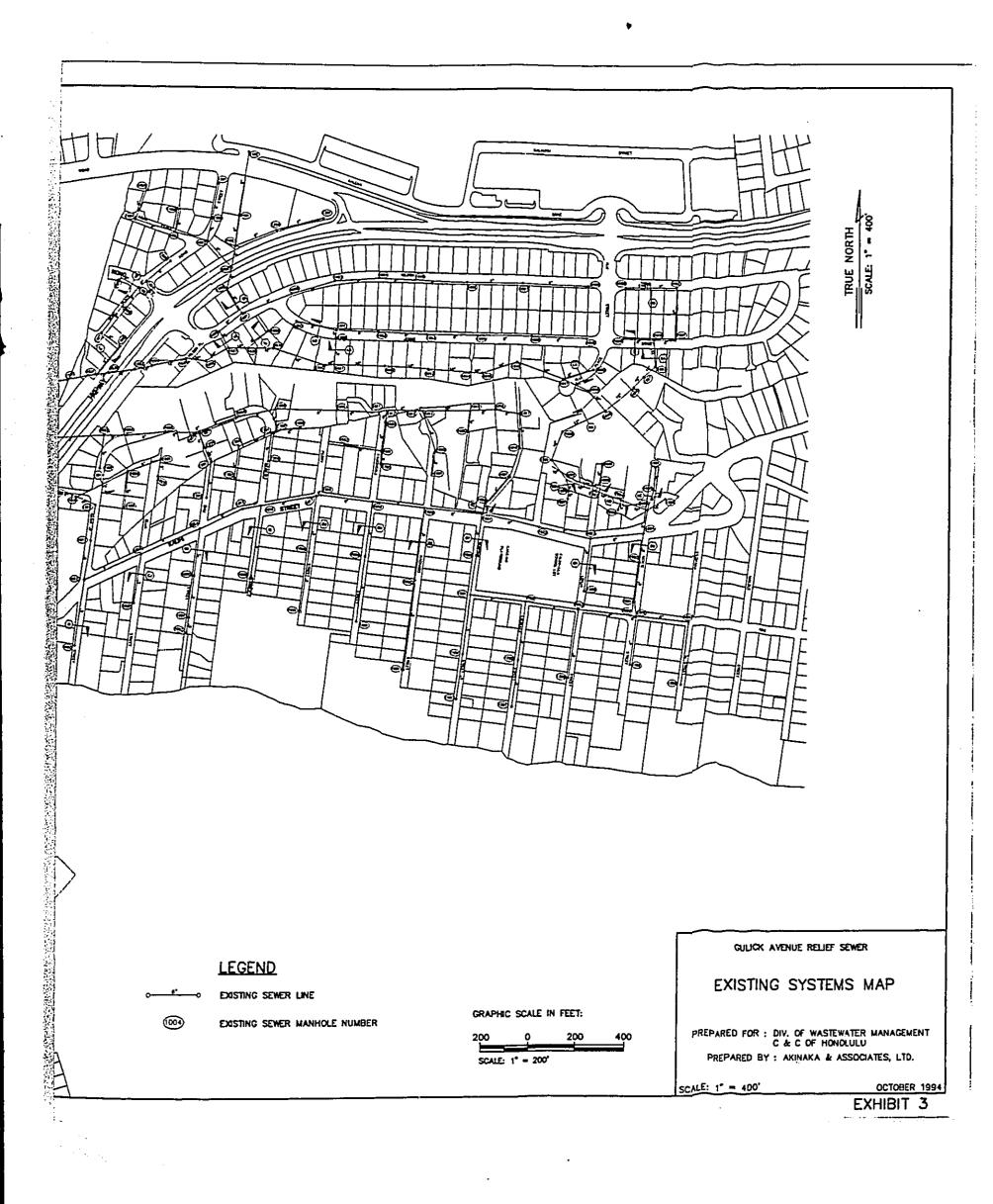


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## III. ENVIRONMENTAL SETTING

#### A. TOPOGRAPHY

The project area encompasses portions of central Kalihi Valley. The area has been entirely regraded by urbanization with slopes between 2% and 10%.

B. GEOLOGY/SOILS

The soil in the project area is of the Kawaihapai series. Soils of the Kawaihapai series are well-drained in drainage-ways. The soils are derived from basic igneous rock in humid uplands. 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, and runoff is slow. The hazard of water erosion is slight. Workability is slightly difficult because the stoniness.

C. CLIMATE

The area has a mild subtropical climate with prevailing northeast trade winds. Mean annual temperature is 77°F. Occasional average temperatures in the lower seventies in January-February and slightly over 80°F during August-October. The mean annual rainfall averages 22.4 inches at the Honolulu International Airport. The mean annual precipitation at the Nuuanu Reservoir No. 4 is 124 inches. Heavy rains often occur during November-February, with only about 20 percent of the annual rainfall occurring in October-March.

D. BIOLOGY

There are no known endangered species of flora or fauna located within the project site. Due to the fully developed areas surrounding the project, construction of this project will have no impact on wildlife.

111-1

ENVIRONMENTAL SETTING OCTOBER 1994

#### E. AIR QUALITY

Although no information on air quality at the project site was obtained, it is observed that the air is relatively clear and low in pollution. This is because of the distance from major urban centers and industries which produce noxious gases.

#### F. NOISE

Noise levels were not measured at the project site. The noise levels are basically normal residential activities and primarily urban road traffic.

#### G. ARCHAEOLOGY

There are no identified historic or archaeologically significant locations located within the project site. However, should any unanticipated sites, artifacts or remains, such as shell, bone or charcoal deposits, be discovered during construction, the work would be halted and mitigating measures will be discussed with the State Historic Preservation Office prior to commencing construction activity.

#### H. FLOOD HAZARD

The Project is not considered to be in a flood-prone area. The Flood Insurance Rate Map (FIRM), City and County of Honolulu, Hawaii, Panel 115 of 135, shows the Project to be outside the 500-year flood plain (Zone X).

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ENVIRONMENTAL SETTING OCTOBER 1994

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#### SOCIO-ECONOMIC SETTING IV.

The Kalihi neighborhood consisted of approximately 41,000 people in 1988. Most residents within the neighborhood's 10,500 households who are in the labor force work in Honolulu. The Kalihi town core includes commercial businesses and retail activities to service the neighborhood. Agricultural production is insignificant in the neighborhood.

Lands along the sewer pipe alignment include residential and commercial spaces as well as public schools. Lot sizes range (in general) from 5,000 to 10,000 square feet. Multi-family residential units are insignificant in number. Commercial activities (shopping center, restaurant and office buildings) are situated near the School Street/Makuahine Street intersection.

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SOCIO-ECONOMIC SETTING OCTOBER 1994

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## V. PROBABLE IMPACTS OF THE PROPOSED ACTION ON THE ENVIRONMENT

#### A. SHORT TERM IMPACTS

Short term impacts of the proposed project will be primarily due to construction. Use of construction equipment such as backhoes, trucks, hand compactors, and pavers will create noise, dust and exhaust emissions. The noise of the construction equipment will be minimized by placing mufflers on machinery, avoiding unnecessary "gunning" of equipment, and restricting construction activity during daylight hours.

Daily traffic of the construction crew should be during off-peak hours. Construction activities will partially interfere with the flow of vehicular traffic. Traffic control by off-duty Police Officers and/or trained construction flagmen will mitigate traffic congestion. Parking will be restricted on both sides of streets (where applicable) during construction. Utilities such as water, electric, gas and telephone installations may also be affected by the construction activities. Construction plans will be reviewed for coordination by all utility companies affected.

Groundwater is not expected during trench construction. Pumping and other dewatering operations will not be required.

#### B. LONG TERM IMPACTS

There are no negative long term impacts from this sewer relief project.

The projects goal is to relieve the inadequate sewer lines in the area to allow development of the tributary area as defined by the Development Plan.

V-1

PROBABLE IMPACTS rMARCH 1995

## VI. ADVERSE IMPACTS WHICH CANNOT BE AVOIDED

The noise level will increase during the construction period. This effect will be of short duration, lasting only for the construction phase. The noise level can be reduced by the contractor by ensuring proper functioning of mufflers on all equipment, and conducting construction activity only during daylight hours, between 7:30 a.m. to 5:00 p.m. Actual construction schedule will be as determined by the Department of Health.

During construction, dust may be generated from pipe installation procedures. The contractor will be required to comply with the procedures outlined by the Department of Health to mitigate the dust emission.

Traffic along the proposed alignment will be disrupted for short periods during installation of the relief sewer line and connection to the existing laterals.

Residents along the proposed alignment will be inconvenienced in regards to driveway access and other roadway frontage usage (mail, deliveries, etc.). Construction specifications will include requirements for lot access. The inconveniences will occur when construction is directly fronting their lots.

Alternate methods of construction (such as micro-tunneling) may reduce noise impacts, dust emmissions and traffic congestion (see VII.-D. ALTERNATE CONSTRUCTION METHODS).

**VI-1** 

ADVERSE IMPACTS rMARCH 1995

## VII. ALTERNATIVES TO THE PROPOSED ACTION

Six alternatives for the relief sewer system were considered in the Preliminary Engineering Report. Three of the alternatives were selected for detailed study. The objectives for the alternatives were to increase the capacity of the sewer system to meet the requirements of the Development Plans projected land use. Alternative 2 is the recommended alternative.

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Commonly, each of the alternatives proposes to repair the existing gravity sewer lines and install relief gravity sewer lines. These consists of: (1) Approximately 800' of existing sewer line along Kalihi Street will be replaced. (2) Relief Sewer Line "A" (R.S.L. "A") will start on Likelike Highway near Kono Street. (3) Relief Sewer Line "B" (R.S.L. "B") will start at the intersection of Maliu and Kalihi Street and continue down Kalihi Street to Likelike Highway.

R.S.L. "A" will intersect R.S.L. "B" at the Kalihi Street/Likelike Highway intersection. Each alternative will continue with R.S.L. "A" through different corridors.

- A. ALTERNATIVE 2 (the recommended alternative) proposes to repair the existing gravity sewer lines and install relief gravity sewer lines. Approximately 800' of existing sewer line along Kalihi Street will be replaced. Relief sewer lines will be placed in Likelike Highway, Kalihi Street and Makuahine Street (R.S.L. "A2") to School Street. EXHIBIT 4: ALTERNATIVE 2, show the alignment for the existing and relief gravity sewer lines. Total construction cost can be found in TABLE 1: COST ESTIMATE FOR ALTERNATIVE 2.
- B. ALTERNATIVE 3 proposes to repair the existing gravity sewer lines and install relief gravity sewer lines. Approximately 800' of existing sewer line along Kalihi Street will be replaced. Relief sewer lines will be placed in Likelike Highway, Kalihi Street and Owawa Street (R.S.L. "A3") to School Street. EXHIBIT 5: ALTERNATIVE 3 shows the alignment for the existing and relief gravity sewer lines. Total construction cost can be found in TABLE 2: COST ESTIMATE FOR ALTERNATIVE 3.
- C. ALTERNATIVE 4 proposes to repair the existing gravity sewer lines and install relief gravity sewer lines. Approximately 800' of existing sewer line along Kalihi Street will be replaced. Relief sewer lines will be placed in Kalihi Street and Likelike Highway (R.S.L. "A4") to School Street.
   EXHIBIT 6: ALTERNATIVE 4 shows the alignment for the existing and relief gravity sewer lines. Total construction cost can be found in TABLE 3: COST ESTIMATE FOR ALTERNATIVE 4.

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ALTERNATIVES OCTOBER 1994

#### D. ALTERNATE CONSTRUCTION METHODS

In lieu of the typical open trenching method of pipe installation, microtunneling has become the choice in special situations. Micro-tunneling is a precision method of directly jacking pipe to line and grade through the ground without an open trench. Micro-tunneling is an alternate solution in congested urban areas, yielding soil conditions, and high groundwater locations. Also, tunneling under streams will preclude permit requirements by Federal and State agencies. The cost effectiveness of micro-tunneling will not be known until the soils investigation is completed.

A soils investigation is required to determine if micro-tunneling is feasible. Borings along the pipe alignment will reveal soils conditions and ground water levels. Knowledge of groundwater levels is important for any construction method and to initiate the NPDES dewatering permits.

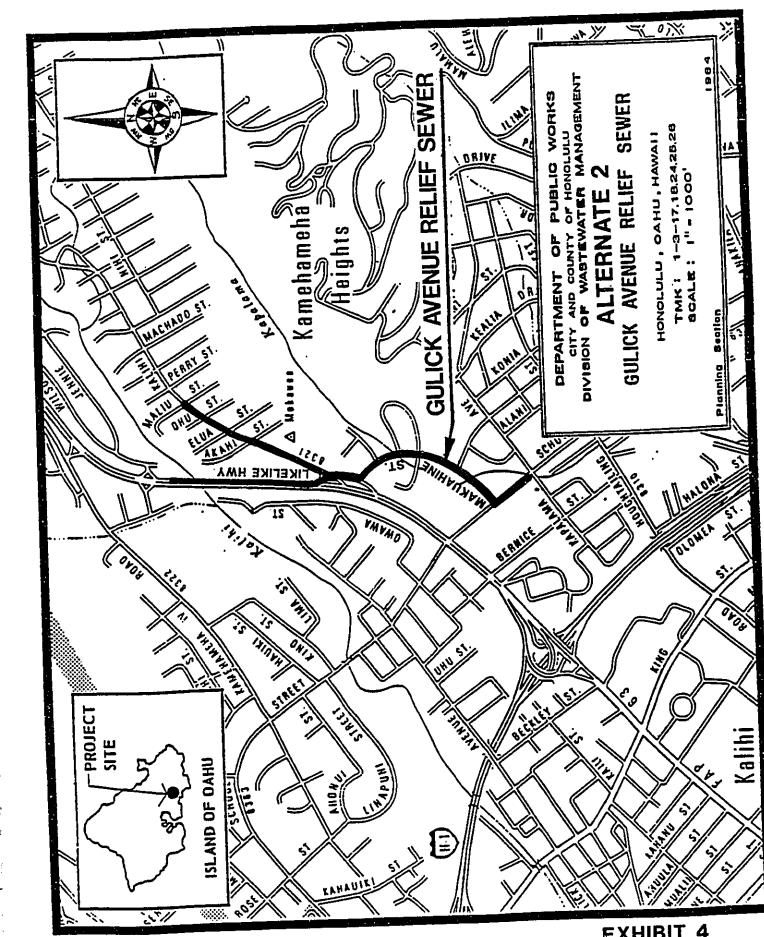
#### E. NO ACTION ALTERNATIVE

The "no action" alternate is not practical as inspections have shown that the existing systems have deteriorated to a condition where repair is required. Studies have also shown that the system is undersized. A program to reduce infiltration and inflow has been initiated by the city. If successful, the construction of the relief system may be postponed.

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ALTERNATIVES rMARCH 1995



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TABLE 1				
CONSTRUCTION COST ESTIMAT	E ALTERNAT	IVE 2		
(RELIEVE EXISTING SEWER VIA M				
GULICK AVENUE RELIEF SEWER			DATE:	3/28/
FILE: TABLE1.XLS				
	ESTIMATED QUANTITY	UNIT	PRICE	TOTAL
DESCRIPTION	10905	CY	360	3,925,
UNCLASS. TRENCH EXC. INCL. SHORING AND DEWATERING	131		60	7,
B-INCH VCP SEWER	1644	 	80	131,
10-INCH VCP SEWER		LF	120	55
15-INCH VCP SEWER	462	 LF	150	261
18-INCH VCP SEWER	2663		200	532
24-INCH VCP SEWER	2003	EACH	6,500	6
PLAIN SEWER MANHOLE 4'-5.99' W/ PLASTIC LINER		EACH	7,500	60
PLAIN SEWER MANHOLE 6'-7.99' W/ PLASTIC LINER		EACH	8,500	25
PLAIN SEWER MANHOLE 8'-9.99' W/ PLASTIC LINER		EACH	9,300	55
PLAIN SEWER MANHOLE 10'-11.99' W/ PLASTIC LINER	6	EACH	10,300	61
PLAIN SEWER MANHOLE 12'-13.99' W/ PLASTIC LINER	7	EACH	11,700	81
PLAIN SEWER MANHOLE 14'-15.99' W/ PLASTIC LINER	1	EACH	12,900	12
PLAIN SEWER MANHOLE 16'-17.99' W/ PLASTIC LINER		EACH	14,100	- 28
PLAIN SEWER MANHOLE 18'-19.99' W/ PLASTIC LINER	2	EACH	14,100	15
PLAIN SEWER MANHOLE 20'-21.99' W/ PLASTIC LINER	1	EACH	16,700	
PLAIN SEWER MANHOLE 22'-23.99' W/ PLASTIC LINER	0	EACH	18,100	
PLAIN SEWER MANHOLE 24'-25.99' W/ PLASTIC LINER	6	EACH	300	1
CONNECTION OF EXISTING LATERALS TO RELIEF LINE		EACH	450	2
CONNECTION OF EXISTING SEWER LINE TO RELIEF LINE		SY	130	439
AC RESURFACING	3383	CY	400	1,600
EXTRA EXCAVATION FOR SOFT SPOTS	4000	CY	20	80
CRUSHED ROCK FOR SOFT SPOTS	4000		40,000	40
ALLOWANCE FOR OFF-DUTY POLICE SERVICE	1388	<u>LS</u>	375	520
REHABILITATE EXISTING 8" SEWER PIPE (CIPP)	1388	LF	650	773
REHABILITATE EXISTING 24" SEWER PIPE (CIPP)		EACH	2,000	20
TYPE I SEWER MANHOLE REPAIR (EPOXY WALL REPAIR)	10	EACH	4,500	
TYPE II SEWER MANHOLE REPAIR (PLASTIC LINING WALL REPAIR)	1	LS	1,000,000	1,000
SEWER BY-PASS	1		1,000,000	9,745
SUB-TOTAL				
				10,329
MOBILIZATION @ 6%				10.846
INFLATION 1992-1994 @ 5%				
			SAY	\$10,847,0

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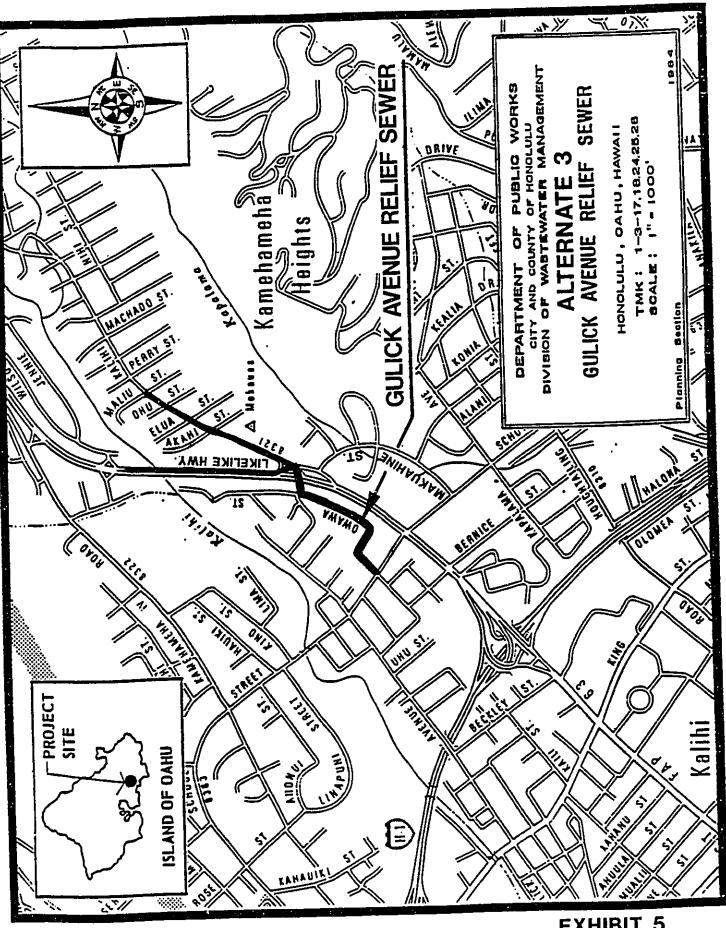
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TABLE 2				
CONSTRUCTION COST ESTIMAT	E ALTERNA	TIVE 3		
(RELIEVE EXISTING SEWER VIA				
GULICK AVENUE RELIEF SEWER		<u> </u>		
			DATE:	3/28/9
FILE: TABLE2.XLS	COTILATED			5/20/3
	ESTIMATED QUANTITY	UNIT	PRICE	TOTAL
	10264	CY	500	5,132,0
UNCLASS. TRENCH EXC. INCL. SHORING AND DEWATERING	131		60	7,8
8-INCH VCP SEWER	1644	 LF	80	131,5
10-INCH VCP SEWER	4119		200	823,8
24-INCH VCP SEWER		 LF	50	5,0
REINFORCED CONCRETE JACKET FOR 24" SEWER	100	EACH	7,875	47,2
PLAIN SEWER MANHOLE 6-7.99' W/ PLASTIC LINER	6	EACH	8,925	35,7
PLAIN SEWER MANHOLE 8'-9.99' W/ PLASTIC LINER	<del>4</del>	EACH	9,765	68,3
PLAIN SEWER MANHOLE 10'-11.99' W/ PLASTIC LINER			10,815	43,2
PLAIN SEWER MANHOLE 12'-13.99' W/ PLASTIC LINER	4	EACH		
PLAIN SEWER MANHOLE 14'-15.99' W/ PLASTIC LINER	5	EACH	12,285	13,
PLAIN SEWER MANHOLE 16'-17.99' W/ PLASTIC LINER	1	EACH	13,545	13,
PLAIN SEWER MANHOLE 18'-19.99' W/ PLASTIC LINER	0	EACH	14,805	
PLAIN SEWER MANHOLE 20'-21.99' W/ PLASTIC LINER	0	EACH	16,170	47
PLAIN SEWER MANHOLE 22'-23.99' W/ PLASTIC LINER	1	EACH	17,535	17,
PLAIN SEWER MANHOLE 24'-25.99' W/ PLASTIC LINER	1	EACH	19,005	19,
CONNECTION OF EXISTING LATERALS TO RELIEF LINE	6	EACH	300	1,
CONNECTION OF EXISTING SEWER LINE TO RELIEF LINE	3	EACH	450	1,
AC RESURFACING	2956	SY	130	384,
EXTRA EXCAVATION FOR SOFT SPOTS	4000	CY	500	2,000,0
CRUSHED ROCK FOR SOFT SPOTS	4000	CY	20	80,0
ALLOWANCE FOR OFF-DUTY POLICE SERVICE	1	LS	40,000	40,
REHABILITATE EXISTING 8" SEWER PIPE (CIPP)	1388	LF	375	520,
REHABILITATE EXISTING 24" SEWER PIPE (CIPP)	1190	LF	650	773,
TYPE I SEWER MANHOLE REPAIR (EPOXY WALL REPAIR)	10	EACH	2,000	20,
TYPE II SEWER MANHOLE REPAIR (PLASTIC LINING WALL REPAIR)	1	EACH	4,500	4,
SEWER BY-PASS	1	LS	1,000,000	1,000,
SUB-TOTAL			· · · · ·	11,232,
				11,906,
MOBILIZATION @ 6%				12,501,
INFLATION 1992-1994 @ 5%			<u> </u>	12,001,4
			SAV	\$12,502,00
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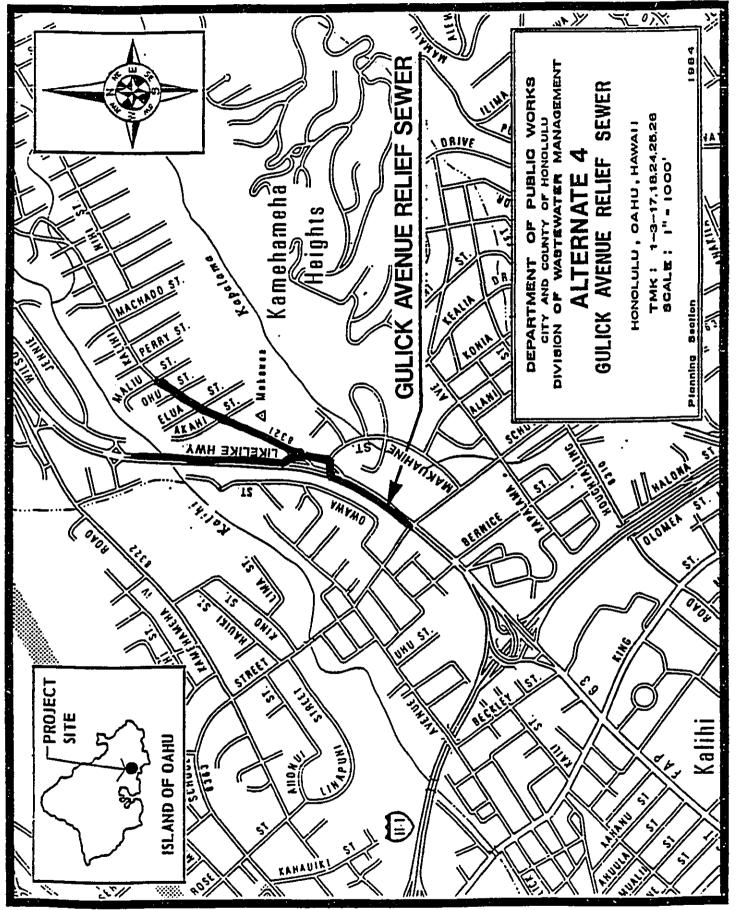
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. . EXHIBIT 6 ALTERNATE 4

CONSTRUCTION COST ESTIMAT	'E ALTERNA	TIVE 4		
(RELIEVE EXISTING SEWER VIA L	<u>IKELIKE HIG</u>	HWAY)		
GULICK AVENUE RELIEF SEWER				
FILE: TABLE3.XLS			DATE:	3/28/9
	ESTIMATED		UNIT	
DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
UNCLASS. TRENCH EXC. INCL. SHORING AND DEWATERING	8707	CY	450	3,918,
B-INCH VCP SEWER	130	LF	60	7,8
10-INCH VCP SEWER	1645	LF	80	131,0
24-INCH VCP SEWER	3658	LF	200	731,
PLAIN SEWER MANHOLE 4'-5.99' W/ PLASTIC LINER	2	LF	6,500	13,
PLAIN SEWER MANHOLE 6'-7.99' W/ PLASTIC LINER	8	EACH	7,500	60,
PLAIN SEWER MANHOLE 8'-9.99' W/ PLASTIC LINER	0	EACH	8,500	
PLAIN SEWER MANHOLE 10'-11.99' W/ PLASTIC LINER	5	EACH	9,300	46,
PLAIN SEWER MANHOLE 12'-13.99' W/ PLASTIC LINER	1	EACH	10,300	10,
PLAIN SEWER MANHOLE 14'-15.99' W/ PLASTIC LINER	4	EACH	11,700	46,
PLAIN SEWER MANHOLE 16'-17.99' W/ PLASTIC LINER	1	EACH	12,900	12
PLAIN SEWER MANHOLE 18-19.99' W/ PLASTIC LINER	0	EACH	14,100	
PLAIN SEWER MANHOLE 20'-21.99' W/ PLASTIC LINER	0	EACH	15,400	
PLAIN SEWER MANHOLE 22'-23.99' W/ PLASTIC LINER	1	EACH	16,700	16
PLAIN SEWER MANHOLE 24'-25.99' W/ PLASTIC LINER	1	EACH	18,100	18
CONNECTION OF EXISTING LATERALS TO RELIEF LINE	5	EACH	300	1
CONNECTION OF EXISTING SEWER LINE TO NEW SMH	3	EACH	450	1
AC RESURFACING	2691	SY	130	349
EXTRA EXCAVATION FOR SOFT SPOTS	4000	CY	450	1,800
CRUSHED ROCK FOR SOFT SPOTS	4000	CY	20	80
ALLOWANCE FOR OFF-DUTY POLICE SERVICE	1	LS	60,000	60
REHABILITATE EXISTING 8" SEWER PIPE (CIPP)	1388	LF	375	520
REHABILITATE EXISTING 24" SEWER PIPE (CIPP)	1190		650	773
TYPE I SEWER MANHOLE REPAIR (EPOXY WALL REPAIR)	10		2,000	20
TYPE II SEWER MANHOLE REPAIR (PLASTIC LINING WALL REPAIR)	1	EACH	4,500	
SEWER BY-PASS	1	LS	1,000,000	
SUB-TOTAL				9,624
			<u> </u>	10,202
MOBILIZATION @ 6%				10,712
INFLATION 1992-1994 @ 5%				10,712
	<b></b>		SAY	\$10,720,0
		L		4.01.0010

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TABLE 4 CONSTRUCTION COST ESTIMAT				
(MAKUAHINE STREET RELIEF SEWER	VIA MICRO-	TUNNE	<u>_ING)</u>	
FILE: TABLE4.XLS			DATE:	3/28
	ESTIMATED		UNIT	
DESCRIPTION	QUANTITY		PRICE	TOTA
UNCLASS, TRENCH EXC. INCL. SHORING AND DEWATERING	600	CY	360	210
8-INCH VCP SEWER	131		180	23
10-INCH VCP SEWER	1644		240	394
15-INCH VCP SEWER	462		360	166
18-INCH VCP SEWER	1740		450	783
24-INCH VCP SEWER	2663	LF	600	1,597
PLAIN SEWER MANHOLE 4'-5.99' W/ PLASTIC LINER	1	EACH	6,500	
PLAIN SEWER MANHOLE 6'-7.99' W/ PLASTIC LINER	8		7,500	
PLAIN SEWER MANHOLE 8'-9.99' W/ PLASTIC LINER	3	EACH	8,500	25
PLAIN SEWER MANHOLE 10'-11.99' W/ PLASTIC LINER	6	EACH	9,300	55
PLAIN SEWER MANHOLE 12'-13.99' W/ PLASTIC LINER	6	EACH	10,300	61
PLAIN SEWER MANHOLE 14'-15.99' W/ PLASTIC LINER	7	EACH	11,700	81
PLAIN \$EWER MANHOLE 16'-17.99' W/ PLASTIC LINER	1	EACH	12,900	12
PLAIN SEWER MANHOLE 18'-19.99' W/ PLASTIC LINER	2	EACH	14,100	28
PLAIN SEWER MANHOLE 20'-21.99' W/ PLASTIC LINER	1	EACH	15,400	15,
PLAIN SEWER MANHOLE 22'-23.99' W/ PLASTIC LINER	0	EACH	16,700	
PLAIN SEWER MANHOLE 24'-25.99' W/ PLASTIC LINER	0	EACH	18,100	
CONNECTION OF EXISTING LATERALS TO RELIEF LINE	6	EACH	300	1,
CONNECTION OF EXISTING SEWER LINE TO RELIEF LINE	6	EACH	450	2,
AC RESURFACING	100	SY	130	13,
EXTRA EXCAVATION FOR SOFT SPOTS	4000	CY	400	1,600,0
CRUSHED ROCK FOR SOFT SPOTS	4000	CY	20	80,0
ALLOWANCE FOR OFF-DUTY POLICE SERVICE	1	LS	40,000	40,0
REHABILITATE EXISTING 8" SEWER PIPE (CIPP)	1388	LF	375	520,
REHABILITATE EXISTING 24" SEWER PIPE (CIPP)	1190	LF	650	773,
TYPE I SEWER MANHOLE REPAIR (EPOXY WALL REPAIR)	10	EACH	2,000	20,0
TYPE II SEWER MANHOLE REPAIR (PLASTIC LINING WALL REPAIR)	1	EACH	4,500	4,5
SEWER BY-PASS	1	LS	1,000,000	1,000,0
SUB-TOTAL				7,585,2
				<u> </u>
MOBILIZATION @ 6%				8,040,3
INFLATION 1992-1994 @ 5%				8,442,3

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## VIII. RELATIONSHIP BETWEEN LOCAL SHORT TERM USES AND MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

The short term use of the project is the same as its long term use - increase the capacity of the existing sewer system. Repair of sections of the pipeline and rehabilitation of sewer manholes will extend the system life. The proposed action, if implemented, will enable the City and County of Honolulu to meet the sewer demands of the Development Plans projected land use.

The proposed action will not involve trade-offs between short-term uses, foreclose future options, narrow the range of beneficial use of the environment, nor pose long-term risks to health and safety. Repair of existing facilities may prevent sewer overflow and its related problems.

VIII-1

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RELATIONSHIP BETWEEN SHORT AND LONG TERM OCTOBER 1994

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## IX. MITIGATING MEASURES TO MINIMIZE ADVERSE IMPACTS

The short term impacts occurring during the construction work will be minimized by applying current techniques and methods. Use of alternate construction methods (such as micro-tunneling), may mitigate the negative impacts of noise, dust and traffic conflicts. In addition, restrictions of operational hours will minimize noise impacts to the adjoining area.

To minimize pollutant emissions from internal construction engines, the contractor will be responsible for proper maintenance of all construction equipment and vehicles.

The contractor will be required to comply with Department of Health regulations to mitigate dust emission. Dust is not anticipated to be a problem due to the sandy nature of the native soil. Dust problems can be mitigated by use of an appropriate water sprinkling method and limiting the area being worked at any one time.

Traffic control by off-duty Police Officers and/or trained construction flagmen will moderate traffic congestion.

MINIMIZING ADVERSE IMPACTS OCTOBER 1994

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## IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES Х.

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The construction of the proposed project would involve the commitment of certain natural and fiscal resources. The commitment of construction materials, manpower, and energy are mostly unrenewable and irretrievable. The impacts of using these resources should, however, be weighed against the benefits to the residents of Kalihi who will not experience future sewage bypasses/overflows. There will be no loss of any natural or cultural resources.

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COMMITMENTS OF RESOURCES OCTOBER 1994

## XI. DETERMINATION

Based on the preceding paragraphs, it is anticipated that the proposed action will result in no significant adverse impacts other than those described in this assessment. Consequently, a Negative Declaration is recommended and therefore, and Environmental Impact Statement would not be required.

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DETERMINATION OCTOBER 1994

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## XII. REASONS SUPPORTING RECOMMENDED DETERMINATION

A. <u>The proposed action does not involve an irrevocable commitment or loss</u> of or destruction of any natural cultural resource:

There are no natural or cultural resources associated with the project site. Development of the project area has substantially altered the site from its natural condition.

B. <u>The proposed action does not curtail the range of beneficial uses of the environment</u>:

The proposed project is consistent with the County's General Plan and the Department of Wastewater Managements planning standards and would not curtail beneficial uses of the environment in the area. The proposed project will be compatible with the uses of the surrounding area.

C. <u>The proposed action is in concert with the State's long-term environmental</u> policies, goals and guidelines as expressed in Chapter 343, HRS, and any revisions and amendments thereto, court decisions and executive orders:

The proposed project is consistent with the State's Land Use Plan which is in concert with all applicable policies, goals and guidelines. No longterm environmental conflicts are foreseen.

D. <u>The proposed action does not substantially affect the economic or social</u> welfare of the community or State:

The economic impact will be affected by the short-term, construction related activities. Cash infusion during the construction phase will be the primary short-term economic impact. Upon completion of the project, the economic situation should return to the existing condition.

E. <u>The proposed action does not involve substantial secondary impacts</u>. <u>such as population changes or effects on public facilities</u>:

The proposed project will not directly result in an increase of population in the area but the project will eliminate restriction to growth due to the inadequacy of the existing system. The proposed project will allow development of lands in conformance with the existing Development plan.

> XII-1 REASONS SUPPORTING RECOMMENDED DETERMINATION OCTOBER 1994

F. <u>The proposed action does not substantially affect public health</u>:

Only the short-term impacts have potential for affecting public health. Construction activities will be regulated to minimize noise, dust and exhaust emissions.

G. <u>The proposed action does not involve a substantial degradation of</u> environmental quality:

The existing physical aspects of the surrounding area will be preserved.

H. <u>The proposed action is individually limited and cumulatively, does not</u> have a considerable effect upon the environment or involve a commitment for larger actions:

The proposed action, either individually or cumulatively, will not have a considerable effect on the environment, nor will it involve a commitment to larger actions.

I. <u>The proposed action does not substantially affect rare, threatened or</u> <u>endangered species or habitats</u>:

There are no known rare, threatened or endangered species or habitat associated with the project site.

J. <u>The proposed action does not detrimentally affect air or water quality or</u> ambient noise levels:

Short-term impacts on air and water quality, as well as noise, may occur during the construction period, but will be mitigated by normal construction practices and will be regulated by the project plans and specifications.

K. <u>The proposed action does not affect an environmentally sensitive area</u> such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary or coastal waters.

The proposed project is not located in an environmentally sensitive area. The project is not located within a flood plain or within a tsunami zone. The project is not located on unique geologically hazardous lands. It is also not expected to have any significant adverse impacts on fresh or coastal waters.

> XII-2 REASONS SUPPORTING RECOMMENDED DETERMINATION OCTOBER 1994

	XIII.	LIST	OF NE	CESSA	RY REVIEW/APPROVALS
		A.	A. CITY AND COUNTY OF HONOLULU		
			1.	Depar	tment of Public Works
				a.	Construction plan approval
				b.	Work in County Roads Permit
			2.	Depai	tment of Transportation Services - plan approval
-			3.	Depa	rtment of Land Utilization
				a.	Construction Dewatering Permit (Temporary)
				b.	Sewer Connection Permits
				C.	Sewer Extension, Oversizing and Relief Sewer Requirements
5				d.	Sign Permit
				e.	Street Usage Permit
		B.	STA	TE OF	HAWAII
			1.	Depa	rtment of Health
				a.	Community Noise Control for Oahu, Title 11, Chapter 43
				b.	Vehicular Noise Control for Oahu, Title 11, Chapter 42
				C.	Fugitive Dust, paragraph 11-60-5, Air Pollution Control, Title 11, Chapter 60
				d.	Construction Plan Approval
			2.	Depa	artment of Transportation
				a.	Construction plan approval
				b.	Work within State R/W Permit
					XIII-1 LIST OF NECESSARY REVIEW/APPROVALS OCTOBER 1994
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## XIV. ORGANIZATIONS AND PERSONS CONTACTED

## A. STATE OF HAWAII

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- 1. Department of Accounting and General Services
- 2. Department of Business, Economic Development and Tourism
- 3. Department of Education
- 4. Department of Land and Natural Resources
- 5. Department of Transportation
- 6. State Historic Preservation Division
- 7. Department of Health
- 8. University of Hawaii
- 9. U.S. Army Corp of Engineers
- 10. American Lung Association
- B. CITY AND COUNTY OF HONOLULU
  - 1. Board of Water Supply
  - 2. Building Department
  - 3. Department of Land Utilization
  - 4. Department of Public Works
  - 5. Department of Transportation Services
  - 6. Police Department

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ORGANIZATIONS CONTACTED OCTOBER 1994

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## C. OTHERS

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- 1. AT&T Company
- 2. Gasco, Inc.
- 3. Hawaiian Electric Company, Inc.
- 4. Oceanic Cable
- 5. GTE Hawaiian Tel
- 6. Kalihi Neighborhood Board
- 7. Kamehameha Shopping Center

XIV-2

. . ORGANIZATIONS CONTACTED OCTOBER 1994

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### XV. BIBLIOGRAPHY

- A. Design Standards of the Dept.. of Wastewater Management, Volume 1 (Feb. 1984) & Volume 2 (Jul. 1984), Dept. of Public Works, City and County of Honolulu.
- B. Standard Details for Public Works Construction, City and County of Honolulu, September 1984.
- C. Standard Specifications for Public Works Construction, City and County of Honolulu, September 1986.
- D. Islandwide Sewer Adequacy Study (Hart Street Area), City & County of Honolulu, Dept. of Public Works, Dept.. of Wastewater Management, Park Engineering, September 1990.
- E. State of Hawaii, Department of Business, Economic Development & Tourism, The State of Hawaii Data Book, 1990: A Statistical Abstract, 1987.

XV-1

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BIBLIOGRAPHY OCTOBER 1994

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# APPENDIX A

# AGENCY CONSULTATION REVIEW LETTERS

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#### RESPONSE.XLS

## GULICK AVENUE RELIEF SEWER ENVIRONMENTAL ASSESSMENT AGENCY CONSULTATION NOVEMBER 1994 SUBMITTAL

1/6/95 E.A. COMMENTS REPLY REPLIED COPY DATE BY ORGANIZATION **CITY & COUNTY** 11/7/94 No comments Letter Dept. of Public Works Check Highway crossing elevation Yes 12/2/94 Letter Dept. of Land Utilization 11/25/94 Traffic control concerns Dept. of Transportation Services Letter 11/15/94 Show exist. waterlines on plans Yes Letter Board of Water Supply Police Department 11/1/94 No comments Letter **Building Department** STATE 12/7/94 Go along w/ Hist. Pres. Div. Dept. of Land & Natural Resources Letter 12/15/94 Check if SCAP needed Comm. on Water Resource Mgmt. Letter 11/10/94 No historic sites, call if any found State Historic Preservation Division Letter 11/15/94 No comments Letter 11/18/94 NPDES required? Dept. of Education Letter 11/18/94 No comments, Neg. Decl. ckay No Dept. of Health Dept. of Acct. & General Services Letter American Lung Association 11/14/94 Hwy. improvements study Letter Dept. of Transportation 11/23/94 |FEMA Zone X Letter Dept. of the Army Waiting (Regulatory Branch) University of Hawaii Dept. of Business, Economic **Development & Tourism** OTHERS 11/30/94 Show underground gas lines AT&T Letter 11/28/94 Show electrical lines, incl. notes Gasco Letter Hawaiian Electric Oceanic Cable Letter GTE Hawaiian Tel Kamehameha Shopping Center

DEPARTMENT OF WASTEWATER MANAGEMENT

CITY AND COUNTY OF HONOLULU DIVISION OF ENGINEERING AND CONSTRUCTION

ENGINEERING AND CON 650 SOUTH KING STREET HONOLULU, HAWAII 96813

JEREMY HARRIS



FEUX B. LIMTIACO

JAMES K. HONKE CHIEF

December 14, 1994

WEI 94-238

Mr. Henry Morita Akinaka & Associates, Ltd. 250 N. Beretania Street, Suite 300 Honolulu, Hawaii 96817

Dear Mr. Morita:

## Subject: <u>Gulick Avenue Relief Sewer</u>

Upon discussion from our December 8, 1994 meeting with your firm and acceptance by the State Department of Transportation (SDOT) (verbal confirmation from a telephone conversation between Akinaka & Associates and SDOT-Planning), the City approves your recommended sewer alignment (Alternate #2 in the 60% PER) for the subject project. As a backup to the verbal approval given by the SDOT, please have them submit for your files and ours a written confirmation letter. We reemphasize that all construction work located within the Likelike roadway area be coordinated with the SDOT.

Should you need further assistance, please call Glenn Okita at 527-5829.

Very truly yours,

JAMES K. HONKE Chief

enjami	in J. Cayetano	
	GOVERNOR	DIRECTOR DEPUTY DIRECTORS KANANI HOLT GLENN M. OKIMOTO JOYCE T. OMINE
		IN REPLY REFER TO:
Ť.	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION 669 PUNCHBOWL STREET HONOLULU, HAWAII 95813-5097	HWY-PS 2.4009
-	December 29, 1994	RECEIVED
1		DEC 2 9 1994
	COPY *	KINAKA & ASSOCIATES, LID.
	Mr. Henry Morita Akinaka & Associates, Ltd. 250 N. Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716	
	Dear Mr. Morita:	
5	Subject: Gulick Avenue Relief Sewer, Kalihi Honolulu, Oahu	
	Apparently, our letter, HWY-PS 2.3537 dated November 14 has been misinterpreted to mean that we will not allow construction of a sewer line along Likelike Highway. T correct.	the
	Instead, we want the City to closely coordinate the des installation of the Gulick Avenue Relief Sewer line wit Highways Division. This action is important to prevent conflicts with possible highway improvements along Like Highway in the same vicinity as the proposed sewer line	h our future like
and the second	Very truly yours,	
	T. HARANO	
	T. HARANO Chief	
	Highways Division	
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BENJAMIN J. CAYETANO GOVERNOR OF HAWAII



REITH W ANUE, CHARPERSON GCARD OF LAND AND NATURAL RESOURCES

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AQUACULTURE DEVELOPMENT PROGRAM AQUATIC RESOURCES

CONSERVATION AND ENVIRONMENTAL AFFAIRS CONSERVATION AND RESOURCES ENFORCEMENT CONVEYANCES FORESTRY AND WILOLIFE HISTORIC PRESERVATION LAND MANAGEMENT STATE PARKS

STATE PARKS WATER AND LAND DEVELOPMENT

BOATING AND OCEAN RECREATION CONSERVATION AND

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621 HONOLULU, HAWAII 96809

REF: OCEA: DKP

DEC | 5 |994

FILE NO.: 95-211a DOC. ID.: 5187

RECEIVED

Mr. Henry Morita, Executive Vice President Akinaka & Associates, Ltd. Consulting Engineers 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716

DEC 1 7 1994

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

SUBJECT: Pre-Assessment for an Environmental Assessment: Gulick Avenue Relief Sewer; Akina & Associates, Ltd., Kalihi, Honolulu, Oahu

The following are our additional comments on the subject project which supplement those forwarded by our previous letter dated December 7, 1994:

Commission on Water Resource Management

The Commission on Water Resource Management's (CWRM) staff comments that if the proposed project will alter the bed or banks of stream channels, the applicant must obtain an approved Stream Channel Alteration Permit (SCAP) pursuant to Section 13-169-50, Hawaii Administrative Rules (HAR) before project implementation.

For more information regarding CWRM's permit requirements relating to streams, the applicant should call 587-0249.

We have no other comment to offer at this time.

Please feel free to call Steve Tagawa at our Office of Conservation and Environmental Affairs, at 587-0377, should you have any questions.

Very truly yours,

KEITH W. AHUE

	BENJAMIN J. CAYETANO	
· · · ·	GOVERNOR OF HAWAN	KEITH W ANUE, CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES CEPUTIES JOHN P KEPFELER II
5	STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES P. O. BOX 621 HONOLULU, HAWAII 95809	CONSERVATION AND ENVIRONMENTAL AFFAIRS
	REF:OCEA:DKP	CONSERVATION AND RESOURCES ENFORCEMENT CONVEYANCES FORESTRY AND WILDLIFE MISTORIC PRESERVATION LAND MANAGEMENT STATE PARKS WATER AND LAND DEVELOPMENT
	FILE NO.: 95-211 DEC -7 1994 DOC. ID.: 5172	
<u> </u>	Mr. Henry Morita, Executive Vice President Akinaka & Associates, Ltd.	RECEIVED
	250 North Beretania Street Suite 200	DEC 8 1994
Π	A A A A A A A A A A A A A A A A A A A	KINAKA & ASSOCIATES, LTD.
	Dear Mr. Morita:	
	SUBJECT: Pre-Assessment for an Environmental Assessment: Gult Relief Sewer; Akina & Associates, Ltd., Kalihi, Honol	ick Avenue
	We have reviewed the Pre-Assessment information for the subject transmitted by your memorandum dated October 26, 1994, and reite Historic Preservation Division comments previously sent directly	project
3	We have no other comments to offer at this time.	to you.
Ĵ	Please feel free to call Steve Tagawa at our Office of Conservat: Environmental Affairs, at 587-0377, should you have any questions	ion and s.
J	Very truly yours,	
Ţ	KEITH W. AHUE	
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# CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET HONOLULU, HAWAII 96513 + (808) 523-4432



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DEC

DONALD A. CLEGG DIRECTOR

LORETTA K.C. CHEE DEPUTY DIRECTOR

AKINAKA & ASSOCIATES, LTD.

3 1994

94-07984(DT)

December 2, 1994

Mr. Henry S. Morita Executive Vice President Akinaka & Associates, Ltd. 250 N. Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

JEREMY HARRIS

MAYOR

Comments to Proposed Gulick Avenue Relief Sewer Tax Map Keys: 1-3-17, 18, 24, 25, 26

Based on the location of the sewer line as shown on the Location Map, the line along Likelike Highway crossing Kalihi Stream is located in a Floodway District. The sewer line should be designed so that it does not increase the base flood elevation. The line should be flood-proofed if it will be located below the base flood elevation. We would like to review the Preliminary Draft Environmental Assessment when it becomes available. Thank you for the opportunity to comment.

If you have any questions regarding the flood requirements, please contact Robert Sumitomo of our staff at 523-4254. Dana Teramoto of our staff can answer any other questions regarding this letter at 523-4648.

Very truly yours,

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Densel Cligy

DONALD A. CLEGG Director of Land Utilization

DAC:am gulick.djt

**The Gas Company** 515 Kamakee Street PO Box 3379 Honolulu. Hawaii 96842 Teleonone (608) 547-3333 Fax (808) 547-3030 547-3561 Telex 7430292

November 30, 1994

Akinaka and Associates, Ltd. 250 North Beretania Street Suite 300 Honolulu, Hawaii 96817-4716

Attention: Mr. Henry S. Morita

Gentlemen:

BHP Petroleum Americas

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RECEIVED

DEC 1 1994'

AKINAKA & ASSOCIATES, LTD.

Subject: Environmental Assessment for Gulick Avenue Relief Sewer Kalihi, Honolulu, Hawaii

Please be advised that BHP Gas Company maintains an underground utility gas main in the project vicinity, which serves customers in the area and is interconnected with the utility network in Kalihi. 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.

Attached are gas map numbers 1-3-26, 27 and 28, 1-6-27 and 28 as requested.

All information provided by BHP Gas Company, including but not limited to maps, prints, and site indications are approximations only of its facilities and its pipelines. The party receiving such information shall have the sole responsibility for field verification to determine the actual locations of such facilities and pipelines.

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Should there be any questions, or if additional information is desired, please call me at 594-5574.

Very truly yours,

THE GAS COMPANY

with K. Aluand

Keith K. Yamamoto Supervisor, Engineering

KKY:krs 94-402

Attachment: Plans

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



November 28, 1994

Mr. Herry S. Morita Akinaka & Associates 250 North Beretanis Street, Suite 300 Honolulu, Hi 96817-4716

Attention: Henry Morita

Re: Gulick Avenue Relief Sewer

HECO Request No: 193273

This is in response to your letter of October 26, 1994, regarding the subject project.

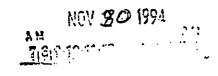
Attached for your use as requested are copies of our "as-built" drawings and/or documents (18923, 20454, 20470, 35529, & 77199) of our underground electrical facilities in the area of your project. We have also provided you with a copy of our "HECO Notes".

Please note that it is your responsibility to verify Hawaiian Electric's *surface* electrical facilities (i.e.: poles, overhead lines, anchors, guy lines, manholes, handholes, etc.).

We request that all of the above information (HECO's overhead and underground facilities as well as our HECO Notes) be included on your plans and have two sets of your pre-final drawings forwarded to us for our review and files.

Please direct all future correspondence to me referring to the HECO Request Number shown above. Should you have any questions, I may be reached at 543-4489.

AKINAKA & ASSOCIATES, LTD. RECEIVED



Sincerely,

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tool

Dennis J. Freitas Records Management Coordinator Distribution Engineering Dept.

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#### HECO NOTES

## Location of HECO Facilities

The location of HECO's overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.

## Compliance with DOSH

The contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).

#### Excavation Permit

The Contractor shall obtain an excavation permit from HECO's Mapping and Records Division located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction. Please refer to our request number at that time.

#### Underground Lines

For verification of underground lines or for assistance in supporting and protecting these lines, the Contractor shall call HECO's Underground Division at 543-7345 a minimum of 72 hours in advance.

#### Excavations

When trench excavation is adjacent to or beneath our existing structures or facilities, the Contractor is responsible for:

- a) Sheeting and bracing the excavation to prevent slides, caveins, and settlements.
- b) Protecting existing structures or facilities with beams, struts, or under-pinnings.

#### Pole Bracing

For pole bracing instructions, the Contractor shall call the HECO District Superintendent at (Koolau/261-6085, Waiau/543-4223, Ward/543-7745) a minimum of 72 hours in advance.

Relocation of HECO Facilities

Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for possible costs if applicable.

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#### Temporary Relocation of HECO Facilities

Should it become necessary to temporarily relocate any of HECO facilities to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contact obligations, these temporary relocations will be done by HECO, or by the Contractor under HECO's supervision, with all costs borne by the Contractor

#### Unforeseen Conflicts

Any unforeseen conflict that would result in the redesign or relocation (either temporary or permanent) of HECO's electrical facilities may be cause for lengthy delays. To avoid such delays, the contractor must notify HECO of the conflict a minimum of 30 days prior to the start of construction.

Damage to HECO Facilities

Any damage to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 543-7874.

Liability for Damages to HECO Facilities

All HECO overhead and underground facilities shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities shall be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO's supervision.

#### Indemnity

The Contractor shall indemnify, defend and hold harmless HECO from and against all losses, damages, claims and actions, all expenses incidental to such losses, damages, claims or action, based upon or arising out of damage to property or injuries to persons, or other tortious acts caused or contributed to by Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability upon the sole negligence of HECO.

	DEPARTMENT OF TRANSPORTATION SERVICES CITY AND COUNTY OF HONOLULU
	PACIFIC PARK PLAZA 711 KAPIOLANI BOULEVARD, SUITE 1200 HONOLULU, HAWAII 86813
	JEREMY HARRIS TRANNE FACL MAYOR JOSEPH M. MAGALDI, JR. DIRECTOR AMAR SAPPAL DEPUTY DIRECTOR
	November 25, 1994 RECEIVED
	DEC 1 1994
	Mr. Henry S. Morita Executive Vice President Akinaka & Associates, Ltd. 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716
	Dear Mr. Morita:
()	Subject: Gulick Avenue Relief Sewer Preliminary Draft Environmental Assessment <u>TMK: 1-3-17: 18, 24 to 26</u>
3	This is in response to your letter dated October 26, 1994 requesting our preliminary comments on the proposed sewer project.
	Our primary concern regarding the project will be its impact on existing traffic conditions during construction. Construction plans and a traffic control plan should be submitted to our department for approval for all work within the City's right-of-way.
	Should you have any questions, please contact Lance Watanabe of my staff at 523-4199.
	Sincerely,
	JOSEPH M. MAGALDI, JR. Director
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#### DEPARTMENT OF THE ARMY U. S. ARMY ENGINEER DISTRICT, HONOLULU FT. SHAFTER, HAWAII 96858-5440

November 23, 1994

Planning Division

REPLY TO

ATTENTION OF

#### RECEIVED

NOV 26 1994

AKINAKA & ASSOCIATED ITS

Mr. Henry S. Morita Executive Vice President Akinaka and Associates, Ltd. 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

Thank you for the opportunity to review and comment on the Preliminary Draft Environmental Assessment for the Gulick Avenue Relief Sewer, Kalihi, Oahu (TMK 1-3-17, 18, 24, 25, and 26). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. Our Regulatory Branch staff is currently reviewing the document and will provide their comments to your office under separate cover.

b. According to the enclosed Federal Emergency Management Agency's Flood Insurance Rate Map, panel number 150001 0112C dated September 28, 1990, the project site is located in Zone X (unshaded; areas determined to be outside of the 500-year floodplain) and the Floodway Area designated as Zone AE (areas inundated by the 100-year flood with a base flood elevation of 130 to 137 feet above mean sea level).

Sincerely,

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Ray H. Jyo, P.E. Director of Engineering

Enclosure

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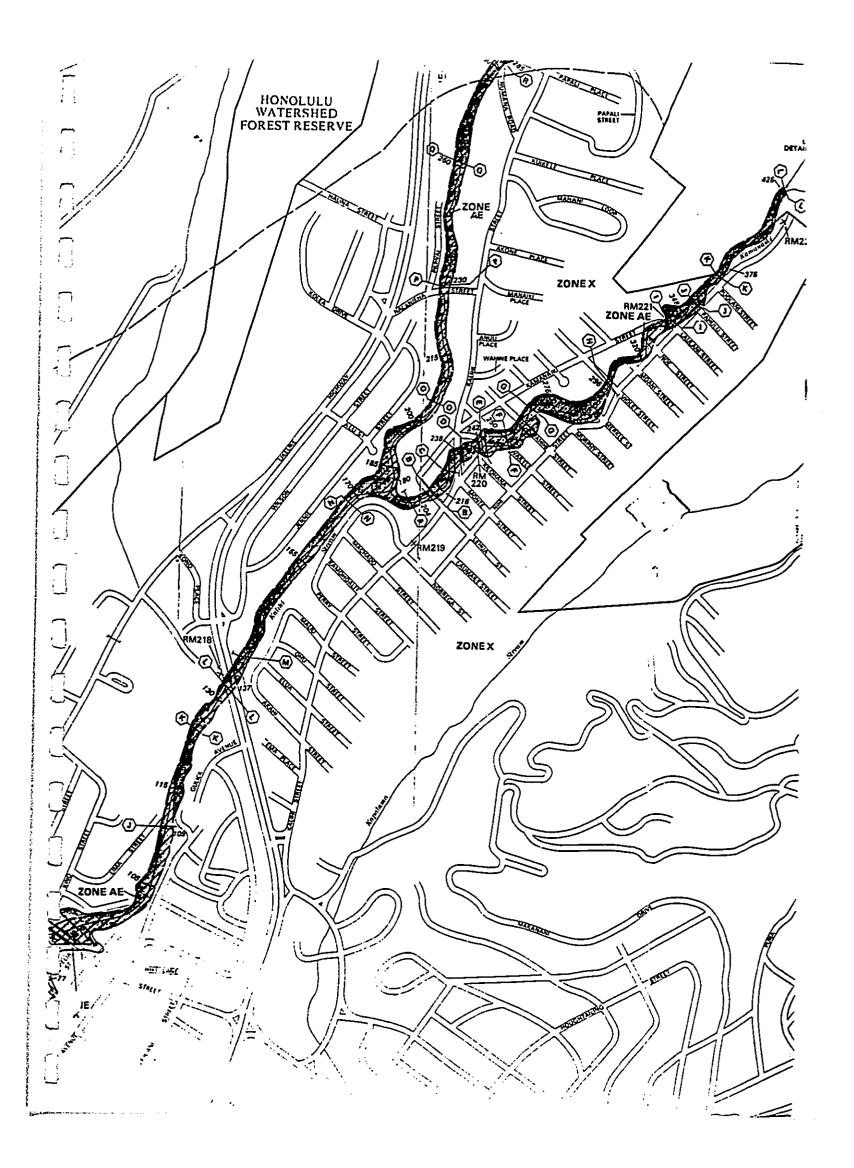
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ROBERT P. TAKUSHI COMPTROLLER

LLOYD I. UNEBASAMI DEPUTY COMPTROLLER

LETTER NO.

(P)1977.4

STATE OF HAWAII DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES P. 0. BOX 119, HONOLULU. HAWAII 95810

#### NOV | 8 |994

Mr. Henry S. Morita Executive Vice President Akinaka and Associates, Ltd. 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716 RECEIVED NOV 1 9 1994

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

Subject: Gulick Avenue Relief Sewer Kalihi, Honolulu, Hawaii Pre-Environmental Assessment Consultation

Thank you for the opportunity to comment on the subject action. Since we have no comments to offer and would have no objection to a negative declaration being filed for this project, it is not necessary for us to receive a copy of the Preliminary Draft Environmental Assessment.

If there are any questions, please have your staff contact Mr. Ralph Yukumoto of the Planning Branch at 586-0488.

Very truly yours,

GORDON MATSUOKA State Public Works Engineer

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RY:jk

JOHN WAIHEE



PETER A. SYBINSKY, Ph.D. DIRECTOR OF HEALTH

STATE OF HAWAII DEPARTMENT OF HEALTH P. 0, 80x 3378 HONOLULU, HAWAII 96801

November 18, 1994

In reply, please refer to:

94-242/epo

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DEC 1 1994

AKINAKA & ASSOCIATES, ITD.

Mr. Henry S. Morita Executive Vice President Akinaka & Associates, Ltd. 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

Subject: Gulick Avenue Relief Sewer

Kalihi, Honolulu, Oahu TMK: 1-3-17: 18, 24, 25, 26

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

#### <u>Wastewater</u>

We have no objections to the proposed study encompassing alternatives for sewer relief along Gulick Avenue. We are always pleased with improvements to the existing sewer system and encourage alternatives and improvements. The Department of Health's ultimate goal is to see, not only Oahu, but someday the entire state sewered where no on-site disposal is utilized.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." and we reserve the right to review the detailed wastewater plans.

Should you have any questions on this matter, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4290.

#### Water Pollution

A National Pollutant Discharge Elimination System (NPDES) permit is required for any discharge to waters of the State including the following:

 Storm water discharges relating to construction activities for projects equal to or greater than five acres;

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Mr. Henry A. Morita November 18, 1994 Page 2

- 2. Storm water discharges from industrial activities;
- 3. Construction dewatering activities;
- 4. Cooling water discharges less than one million gallons;

. . 

- 5. Ground water remediation activities; and
- 6. Hydrotesting water.

Any person wishing to be covered by the NPDES general permit for any of the above activities should file for a Notice of Intent with the Department's Clean Water Branch at least 90 days prior to commencement of any discharge to waters of the State.

Any questions regarding this matter should be directed to Mr. Denis Lau of the Clean Water Branch at 586-4309.

Sincerely,

5 Terres 1 Peter A. Sybinsky, Ph.D. Director of Health

C: WWB CWB

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	JOHN WAIHEE GOVERNOR		HERMAN M. AZAWA, Ph.D. SUFERNTENDENT
$\Box$			RECEIVED
		STATE OF HAWAII	NOV 3 0 1994 akinaka & associates, Ltd.
		DEPARTMENT OF EDUCATION P. O. BOX 2353 HONOLULU, HAWAII 9664	
	OFFICE OF THE SU	PERINTENDENT	November 15, 1994
$\Box$		Mr. Henry S. Morita Executive Vice-President	
Ū		Executive vice-president Akinaka & Associates, Ltd. 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716	
C		Dear Mr. Morita:	
		SUBJECT: Gulick Avenue Relief Sewer <u>Kalihi, Honolulu, Hawaii</u>	: :
		We have reviewed the map showing location subject project and have determined that th will have no impact on the schools in the a	e proposed project
		Thank you for the opportunity to comment.	
		Sincerely,	
		Herman M. Aizawa, Ph.D. Superintendent	
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		cc: A. Suga	
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				JEREMY HARRIS, Mayor WALTER O. WATSON, JR., Chairman MAURICE H. YAMASATO, Vice Chairr
1	630 SOUTH BERETANIA			SISTER M. DAVILYN AH CHICK, O.S.I REX D. JOHNSON
	HONOLULU, HAWAII 968	43		MELISSA Y J. LUM FORREST C. MURPHY
• •			November 15, 1994	KENNETH E SPRAGUE KAZU HAYASHIDA
				Manager and Chief Engineer
	Mr. Henry		$\mathbb{CO}$	PY
		Vice President nd Associates, Ltd.	RECEIVED	)
		Beretania Street, Suite 300 Hawaii 96817-4716	NOV 1 9 1994	
	Dear Mr. N		AKINAKA & ASSOCIATES,	LTD.
) ( <u> </u> )	Subject:	Your Letter of October 26, Sewer, Kalihi, Honolulu, H	1994 Requesting Comments on the	e Gulick Avenue Relief
	Thank you	for the opportunity to revie	w and comment on the subject pro	ject.
	We provide	e the following comments:		
	1.	should be indicated on the	d proposed Board of Water Supply construction plans and addressed i (DEA) to ensure the protection and	n the preliminary draft
<u> </u>	2.	We request a copy of the D	EA and construction plans for our :	review.
			<b>k</b>	
	3.	If water is required during or require BWS approved redu	construction, all connections to the lead pressure principle backflow pr	BWS system will
		If water is required during or require BWS approved redu further comment until we re	iced pressure principle backflow pr	BWS system will
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#### STATE OF HAWAII DEPARTMENT OF TRANSPORTATION 869 PUNCHBOWL STREET HONOLULU, HAWAII 96813-5097

November 14, 1994

REX D. JOHNSON DIRECTOR

DEPUTY DIRECTORS KANANI HOLT GLENN M. OKIMOTO JOYCE T. OMINE CALVIN M. TSUDA

IN REPLY REFER TO;

HWY-PS 2.3537

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NOV 1 5 1994

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita Executive Vice President Akinaka & Associates, Ltd. 250 N. Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

Subject: Gulick Avenue Relief Sewer, Kalihi Honolulu, Oahu

Please be aware that we will soon be conducting a study of proposed highway improvements along Likelike Highway in the same vicinity as your proposed sewer line. The study will also include the intersection of Likelike Highway with Kalihi and Makuahine Streets.

All plans for construction work within the State highway right-of-way must be submitted to the State Highways Division for our review and approval.

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Very truly yours,

- MARANO

T. HARANO Chief Highways Division

	JOHN WAINEE	151 DT - 114	<b>x</b>	EXITH AHUE, CHAIRPERSON BOARD OF LAND AND NATURAL REBOURCE
60 	VERNOR OF HAWAII		) Copy	DEPUTIES JOHN P. KEPPELER 11 DONA L. HANAIKE
	Di November 10, 1994	STATE OF HAN EPARTMENT OF LAND AND NA STATE HISTORIC PRESERVAT	TURAL RESOURCES	AQUACULTURE DEVELOPMENT PROGRAM AQUATIC REGOURCES CONSERVATION AND ENVIRONMENTAL AFFAIRS CONSERVATION AND REBOURCES ENFORCEMENT
	Mr. Henry S. Mori Executive Vice Pr Akinaka & Associa 250 N. Beretania Honolulu, Hawaii	33 SOUTH KING STREET. 6 HONOLULU, HAWAII 6 cesident ites, Ltd. Street, Suite 300	RECEIVED NOV 1 9 1994 AVINAKA & ASSOCIATES, LTDLO	CONVEYANCES FORESTRY AND WILDUFE HISTORIC PRESERVATION DEVISION LAND MANAGEMENT STATE PANKS WATER AND LAND DEVELOPMENT G NO: 13075 C NO: 9411EJ01
	Dear Mr. Morita: SUBJECT: Gulick Kapalan	Avenue Relief Sewe na, Kona, O`ahu 1-3-17, -18, -24_th	er, Kapalama O'ahu	
	Thank you for th environmental ass Relief project. known historic si Although no arch along this urband	ne opportunity to sessment being preparts A review of our r ites at the parcels naeological invent ized section of Kal	review the site p ared for the Gulic ecords shows that along the "Alterr ory survey has b ihi it is unlikely we believe that	there are no nate 2" route. een conducted that surface this project
	It is possible t be uncovered dur	hat historic sites ing routine constru- work in the vicin ision must be conta	, including human uction activities. ity must stop and	burials, will Should this the Historic
	Sincerely			
	Don Hibbard, Adm Historic Preserv	inistrator ation Division		
	EJ:jk			

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

JEREMY HARRIS



KENNETH E. SPRAGUE DIRECTOR AND CHIEF ENGINEER

RECEIVEDV 94-268

November 7, 1994

NOV 9 - 1994

AKINAKA & ASSOCIATES, LTO.

. . . . . . .

Mr. Henry S. Morita Executive Vice President Akinaka & Associates, Ltd. 250 North Beretania Street, Suite 300 Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

Subject: Pre-Environmental Assessment (PEA) Gulick Avenue Relief Sewer TMK: 1-3-17, 18, 24, 25 and 26

We have reviewed the subject document and have no comments to offer at this time.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at 523-4150.

Very truly yours,

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KENNETH E. SPRAGUE Director and Chief Engineer

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	CITY AND	BUILDING DEPARTMENT COUNTY OF HONOLULU MUNICIPAL BUILDING 650 SOUTH KING STREET HONOLULU, HAWAII 96013	HONOLULU
	JÉREMY HARRIS MAYOR		WILLIAM F. REMULAR ACTING DIRECTOR AND BUILDING SUPERINTENDEN
		November 1, 1994	RECEIVED
· ·			NOV 4 1994
	Akinaka & Associates, 250 North Beretania S Honolulu, Hawaii 968	Street, Suite 300	AKINAKA & ASSOCIATES, LTD.
	Gentlemen:		
$\Box$		Avenue Relief Sewer , Oahu, Hawaii	-
$\Box$	The subject proj therefore, we have no us of this future pro	comments to offer.	any of our facilities; Thank you for informing
		W. F. Acting	REMULAR Director and ang Superintendent
		W. F. Acting	REMULAR Director and
÷	cc: G. Tamashiro	W. F. Acting	REMULAR Director and
	cc: G. Tamashiro	W. F. Acting	REMULAR Director and
	cc: G. Tamashiro	W. F. Acting	REMULAR Director and
	cc: G. Tamashiro	W. F. Acting	REMULAR Director and
	cc: G. Tamashiro	W. F. Acting	REMULAR Director and

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