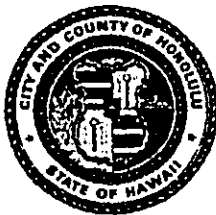


DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4432

FRANK F. FASI
MAYOR



RECEIVED

'90 OCT -9 P2:37

DONALD A. CLEGG
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

90/SMA-64(THE)

October 4, 1990

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Office of Environmental Quality Control
465 South King Street
Kekuanaoa Bldg., #104
Honolulu, Hawaii 96813

Pohakapu Subd.

**SPECIAL MANAGEMENT AREA ORDINANCE
CHAPTER 33, ROH
Environmental Assessment/Determination
Negative Declaration**

Recorded Owner : Henry W. Wong
Applicant : Pohakapu Partners
Agent : Gray, Hong, Bills & Associates
Location : Kailua Road-Abandoned Pohakapu Sewage Treatment Plant
Tax Map Key : 4-2-13:28
Request : Subdivision of 2.627 acres into 15 residential lots
with a 44-foot wide access road
Determination : Environmental Impact Statement (EIS)
Not Required

Attached and incorporated by reference is the environmental assessment prepared by the applicant for the project.

On the basis of the environmental assessment, we have determined that an Environmental Impact Statement is not required.

APPROVED

Donald Clegg
DONALD A. CLEGG
Director of Land Utilization
City and County of Honolulu
State of Hawaii

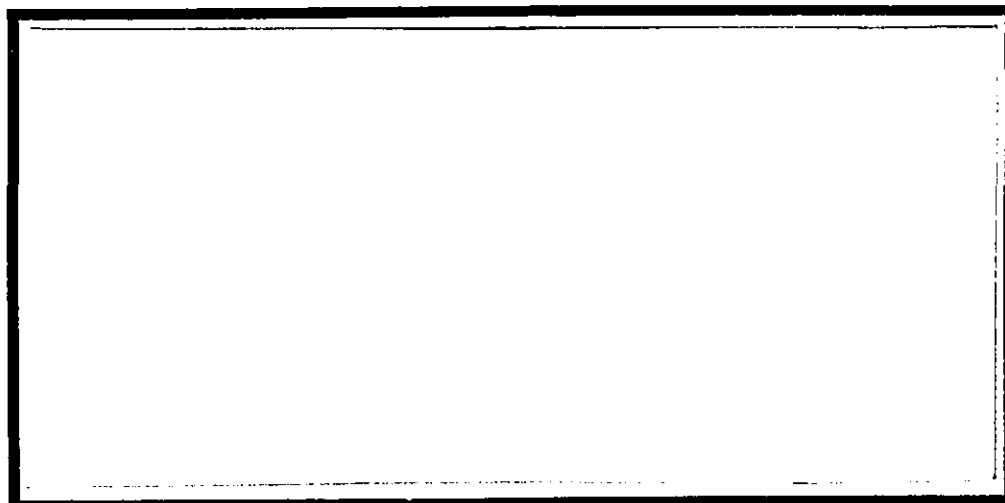
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1990-10-23-0A-FBA

P Okaapu Subdivision to Kaula

FILE COPY



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

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

ENVIRONMENTAL ASSESSMENT
AND SUPPLEMENTAL INFORMATION

FOR

TAX MAP PARCEL 4-2-13:28
KAILUA, OAHU, HAWAII

1990 JUL 19 PM 3:19
DEPT. OF LAND & NATURAL RESOURCES
CITY & COUNTY OF HONOLULU

PREPARED BY:

GRAY, HONG, BILLS AND ASSOCIATES
119 MERCHANT STREET, SUITE 607
HONOLULU, HAWAII 96813
PHONE 521-0306/FAX 531-8018

JULY, 1990

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LIST OF EXHIBITS

<u>Exhibit</u>	<u>Description</u>
1	Vicinity Map
2	Location Map
3	Tax Map
4	Site plan
5	Urban State Land Use District Map
6	R-5 Residential Zoning Map (City and County of Honolulu)
7	Special Management Area Map
8	Preliminary Grading Plan
9	FIRM Map

APPENDICES

- A WETLAND BOUNDARY DETERMINATION - U. S. ARMY CORPS OF ENGINEERS
AND BOTANICAL SURVEY
- B ARCHAEOLOGICAL RECONNAISSANCE SURVEY REPORT

ENVIRONMENTAL ASSESSMENT

REQUIRED WITH AN APPLICATION FOR A SPECIAL MANAGEMENT
AREA USE PERMIT

I. GENERAL INFORMATION

- A. APPLICANT: Pohakapu Partners
Gordon J. Mau, General Partner
1000 Bishop Street, Suite 303
Honolulu, Hawaii 96813
Telephone: 536-3451
- B. RECORDED FEE OWNER: Henry W. Wong
44-443 Kaneohe Bay Drive
Kaneohe, Hawaii 96744
Telephone: 254-4786
- C. AGENT: Gray, Hong, Bills & Associates
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813
Telephone: 521-0306
- D. TAX MAP KEY: 4-2-13:28
- E. LOT AREA: 2.627 Acres
- F. AGENCIES CONSULTED IN MAKING ASSESSMENT:
1. Department of Land Utilization
City and County of Honolulu
 2. U. S. Army Corps of Engineers
Construction Operation Division - Wetland Boundary
Determination (See Appendix A)

II. DESCRIPTION OF PROPOSED ACTION

- A. GENERAL DESCRIPTION: The applicant is proposing subdivision of the subject property into 15 residential lots with a 44-foot wide access road (See Exhibits 1, 2, 3, & 4). The subject parcel with a lot area of 2.627 acres is within the Urban State Land Use District and R-5 Residential zoning district of the City and County of Honolulu (See Exhibits 5 & 6). The site is entirely within the Special Management Area (See Exhibit 7).

The proposed subdivision site was previously the site of the Pohakapu Wastewater Treatment Plant facility. The wastewater treatment plant facility has been abandoned, but all equipment and tankage presently exist on the site. All the existing structures will be demolished and removed in conjunction with subdivision. A 44-foot road will be constructed to provide access from Kailua Road to all proposed residential lots.

B. TECHNICAL CHARACTERISTICS:

1. Use Characteristics: Single-family residences
2. Physical Characteristics: The ground surface elevations on the site range from 10 feet above Mean Sea Level (MSL) in the northern portion (adjacent to Kawainui Swamp) to approximately 70 feet MSL in the southern portion (adjacent to Kailua Road) of the site. The topography slopes from Kailua Road towards Kawainui Swamp with an average gradient of 15%.

Kawainui swamp is located along the northern boundary of the subject parcel. The northern edge of the site has been planted with lawn grass, banana, and coconut trees. There is an existing ditch along the eastern boundary of the site.

The site is presently occupied by the abandoned wastewater treatment plant composed of four large circular tanks, four rectangular tanks, two small wooden structures, sludge beds and a one-story pump building.

3. Construction Characteristics: The abandoned wastewater treatment facility will be demolished and removed in conjunction with subdivision.

The preliminary grading plan for the project is shown on Exhibit 8. Grading is required for roadway installation and creation of house lots. It is estimated that, the project will require 2300 cubic yards of excavation and 12,200 cubic yards of embankment.

4. Existing Utilities:

- A. Municipal Water from the Board of Water Supply System
- B. Electric Service from the Hawaiian Electric Co., Inc.
- C. Telephone Service from the GTE Hawaiian Tel, Inc.

5. Wastewater Disposal: Wastewater will be collected and transmitted to the County sewer system using gravity sewer, a privately maintained sewage pump station, and a force main. The sewage pump station will be equipped with a standby generator for back-up power in case of electrical outage.

6. Solid Waste Disposal: Municipal rubbish disposal.
Provided by the City and County of Honolulu
Department of Public Works

7. Access to Site: Kailua Road

C. ECONOMIC AND SOCIAL CHARACTERISTICS:

1. Cost of Construction: The cost of demolition and removal of abandoned wastewater treatment plant has been estimated to be \$75,000.00. The cost of grading and access road installation has been estimated to be \$250,000.00. The construction is scheduled to begin in January 1991 and will be completed by March 1991. It is intended to dedicate the roadway to the City and County of Honolulu.

D. ENVIRONMENTAL CHARACTERISTICS:

1. Soils: The soils of this property are of the Pohakapu series, specifically Pohakapu silty clay loam. These soils formed in old alluvium derived from basic igneous material. The substratum is strongly weathered gravel. The soil is slightly acid to medium acid. Permeability is moderately rapid. Runoff is slow, and the erosion hazard is slight. This soil is used for pasture, truck crops, and homesites (USDA Soil Conservation Service Soil Survey, 1972).

The site is underlain by a colluvial deposit of medium stiff to very stiff brown silty clay and sandy clay with basalt gravel, cobbles and boulders.

2. Topography: The ground surface elevations on the site range from 10 feet MSL in the portion adjacent to Kawainui swamp to approximately 70 feet MSL in the portion adjacent to Kailua Road. The topography slopes toward Kawainui swamp with an average gradient of 15%.
3. Surface Runoff Drainage and Erosion Hazard: The site is covered with vegetation and the soil is medium stiff to very stiff. The site was previously urbanized due to the construction of Pohakapu WWTP. The majority of the site was previously landscaped with lawn grass. All drainage above the site is intercepted by Kailua Road and therefore, the erosion hazard caused by localized drainage is negligible.

There is an existing ditch along the eastern boundary of the property. There is no flow of water in the ditch during dry weather periods. However, there will be flow of water in the ditch whenever a rainfall event occurs. It is estimated that the peak flow which can be accommodated by a 12" x 12" box culvert passing under Kailua Road is approximately 1500 cfs.

4. Federal Firm Zone, Flood Hazard District, Other Geological Hazards: The site is located in FIRM Zone X which is the areas determined as outside 500-year flood zone (See Exhibit 9).

III. AFFECTED ENVIRONMENT

- A. The subject parcel is located in Kailua, Oahu, Hawaii. The street fronting the parcel is Kailua Road. The parcel is situated between Kailua Road and Kawainui Swamp. To the east of the parcel there is St. John's Lutheran Church. To the west of the parcel there is the Kailua Baptist Church. The neighborhood predominantly consists of single-family residences.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

The site is underlain by a colluvial deposit of medium stiff to very stiff brown silty clay and sandy clay with basalt gravel, cobbles and boulders.

2. Topography: The ground surface elevations on the site range from 10 feet MSL in the portion adjacent to Kawainui swamp to approximately 70 feet MSL in the portion adjacent to Kailua Road. The topography slopes toward Kawainui swamp with an average gradient of 15%.
3. Surface Runoff Drainage and Erosion Hazard: The site is covered with vegetation and the soil is medium stiff to very stiff. The site was previously urbanized due to the construction of Pohakapu WWTP. The majority of the site was previously landscaped with lawn grass. All drainage above the site is intercepted by Kailua Road and therefore, the erosion hazard caused by localized drainage is negligible.

There is an existing ditch along the eastern boundary of the property. There is no flow of water in the ditch during dry weather periods. However, there will be flow of water in the ditch whenever a rainfall event occurs. It is estimated that the peak flow which can be accommodated by a 30" box culvert passing under Kailua Road is approximately 1500

4. Federal Flood Hazard District, Other Geological Hazards: The site is in FIRM Zone X which is the areas determined as outside 500-year flood zone (See Exhibit 9).

III. AFFECTED ENVIRONMENT

- A. The subject parcel is located in Kailua, Oahu, Hawaii. The street fronting the parcel is Kailua Road. The parcel is situated between Kailua Road and Kawainui Swamp. To the east of the parcel there is St. John's Lutheran Church. To the west of the parcel there is the Kailua Baptist Church. The neighborhood predominantly consists of single-family residences.

B. The subject parcel with a lot area of 2.627 acres is within the Urban State Land Use District and R-5 Residential zoning district of the City and County of Honolulu. The site is entirely within the Special Management area. The Kailua High School is located approximately 1/4th mile east of the parcel. A small portion of the site is within or adjacent wetlands as defined by the U. S. Army Corps of Engineers. Appendix A shows the wetland boundary. No work or improvements are proposed in the wetland boundary area. A botanical survey was conducted in conjunction with the Corps of Engineers field observatory and this survey is also in Appendix A.

C. The property is not listed on the Hawaii Register of Historic Sites. Development in nearby areas shows no historic or archaeological sites. A recent surface reconnaissance indicates that the subject property has undergone substantial alterations related to the construction of the sewage treatment plant. These changes are such that the potential for uncovering surface or subsurface features are all but excluded. See Appendix B for an Archaeological reconnaissance survey report.

D. The proposed 44-foot wide access right-of-way and the building setbacks will provide a panoramic view of Kawainui Swamp from Kailua Road. Coastal views do not exist and will not be affected.

E. Kawainui Swamp is receiving storm water from the previously urbanized wastewater treatment plant site. The quantity of storm runoff will not substantially increased due to the proposed development and Kawainui Swamp will continue to receive storm water whenever a rainfall event occurs. The storm water will not appreciably affect the quality of surface water at Kawainui Swamp. Groundwater was not encountered to a depth of 26 feet below ground surface elevation during the preliminary geotechnical exploration.

IV. PROJECT IMPACTS: The proposed subdivision of the subject parcel into 12 residential lots is consistent with the objectives and policies of the Special Management Area. The development is compatible with the visual

environment and does not alter natural landforms and existing public views to and along the shoreline. The proposed action does not affect the present environmental or ecological conditions. Hence, the proposed subdivision is not expected to have any significant adverse effects on the special Management Area.

Alternatives Considered: No action.

V. MITIGATION MEASURES: No mitigation measures are proposed other than normal and routine construction activities/methods for dust, noise and temporary erosion control during grading operations.

VI. SUPPLEMENTAL INFORMATION

A. APPLICANT:	Pohakapu Partners Gordon J. Mau, General Partner
B. RECORDED FEE OWNER:	Henry W. Wong
C. LOCATION:	Pohakapu, Kailua, Oahu
D. TAX MAP KEY:	4-2-13:28
E. DRAWINGS/PLANS:	See the following list of Exhibits.

LIST OF EXHIBITS

<u>Exhibit</u>	<u>Description</u>
1	Vicinity Map
2	Location Map
3	Tax Map
4	Site plan
5	Urban State Land Use District Map
6	R-5 Residential Zoning Map (City and County of Honolulu)
7	Special Management Area Map
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APPENDICES

- A WETLAND BOUNDARY DETERMINATION - U. S. ARMY CORPS OF ENGINEERS
AND BOTANICAL SURVEY
- B ARCHAEOLOGICAL RECONNAISSANCE SURVEY REPORT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

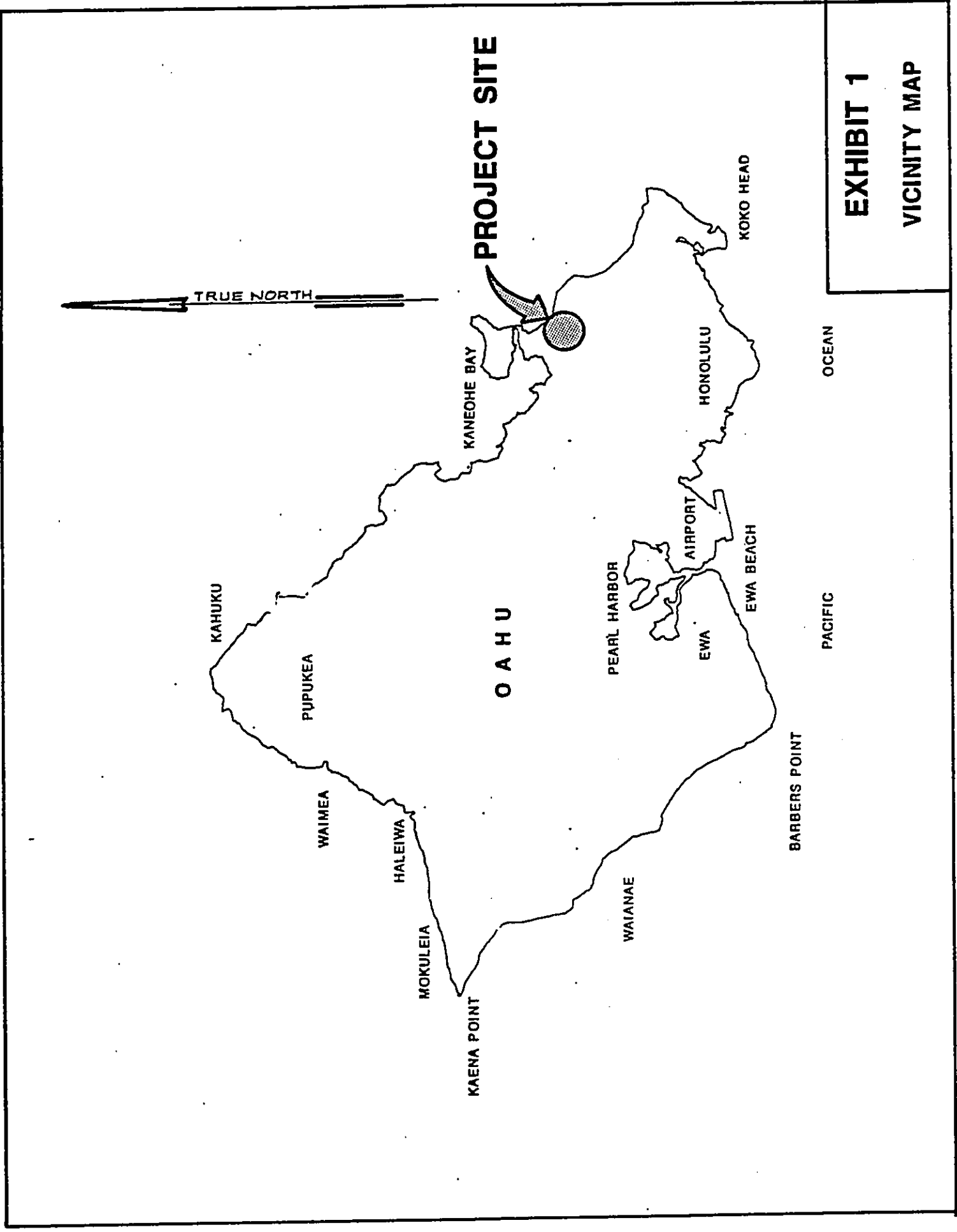


EXHIBIT 1
VICINITY MAP

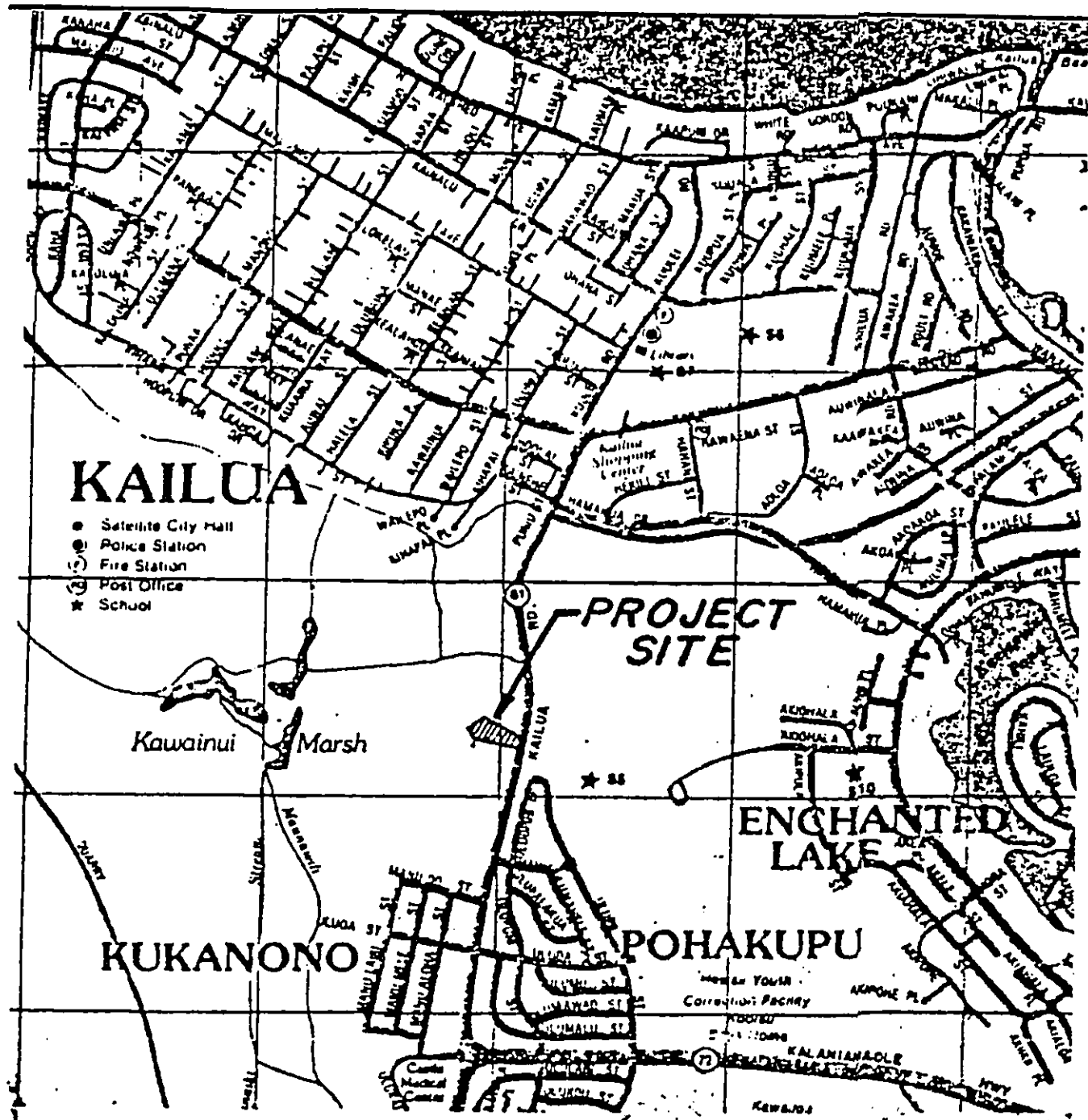
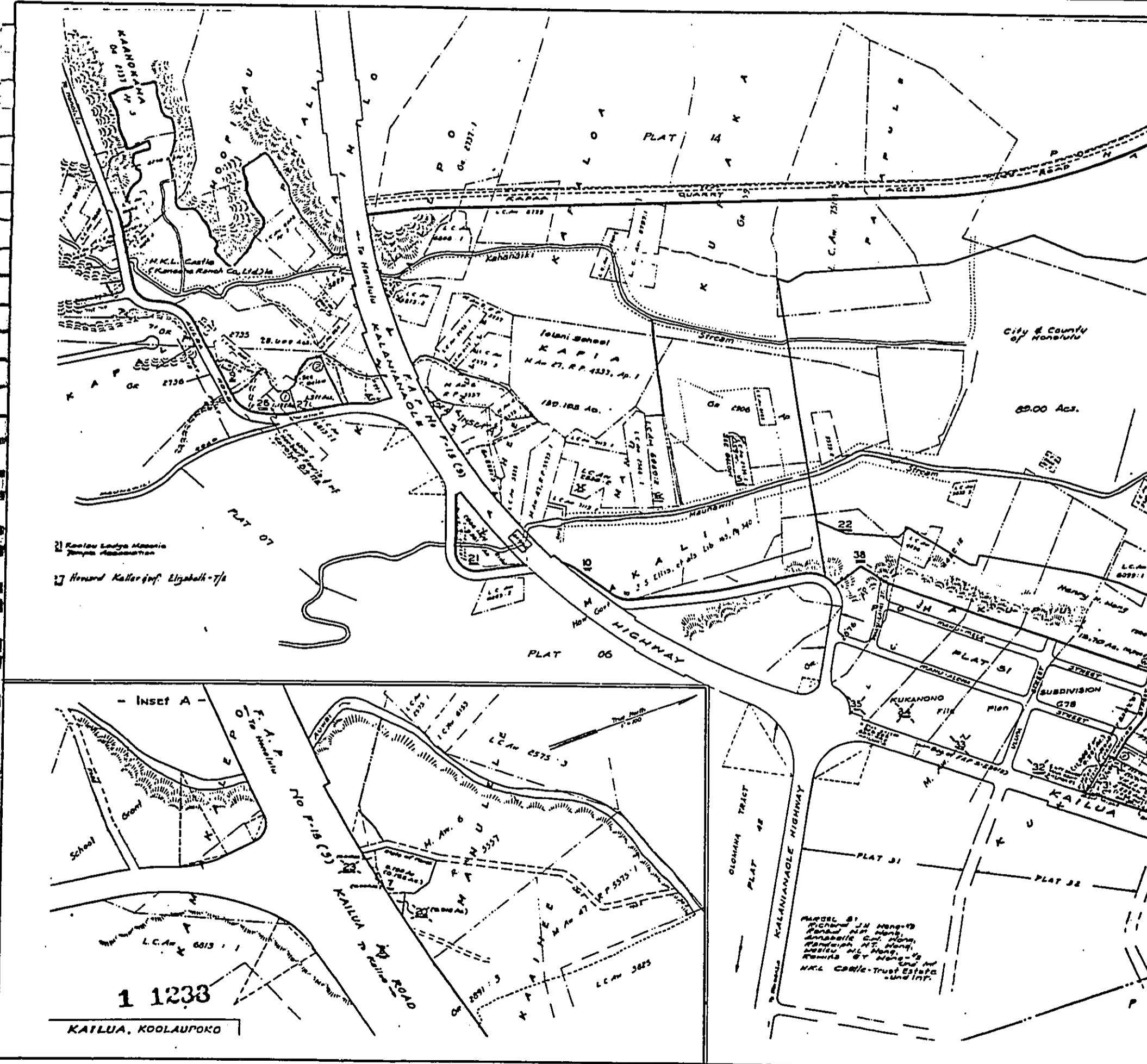
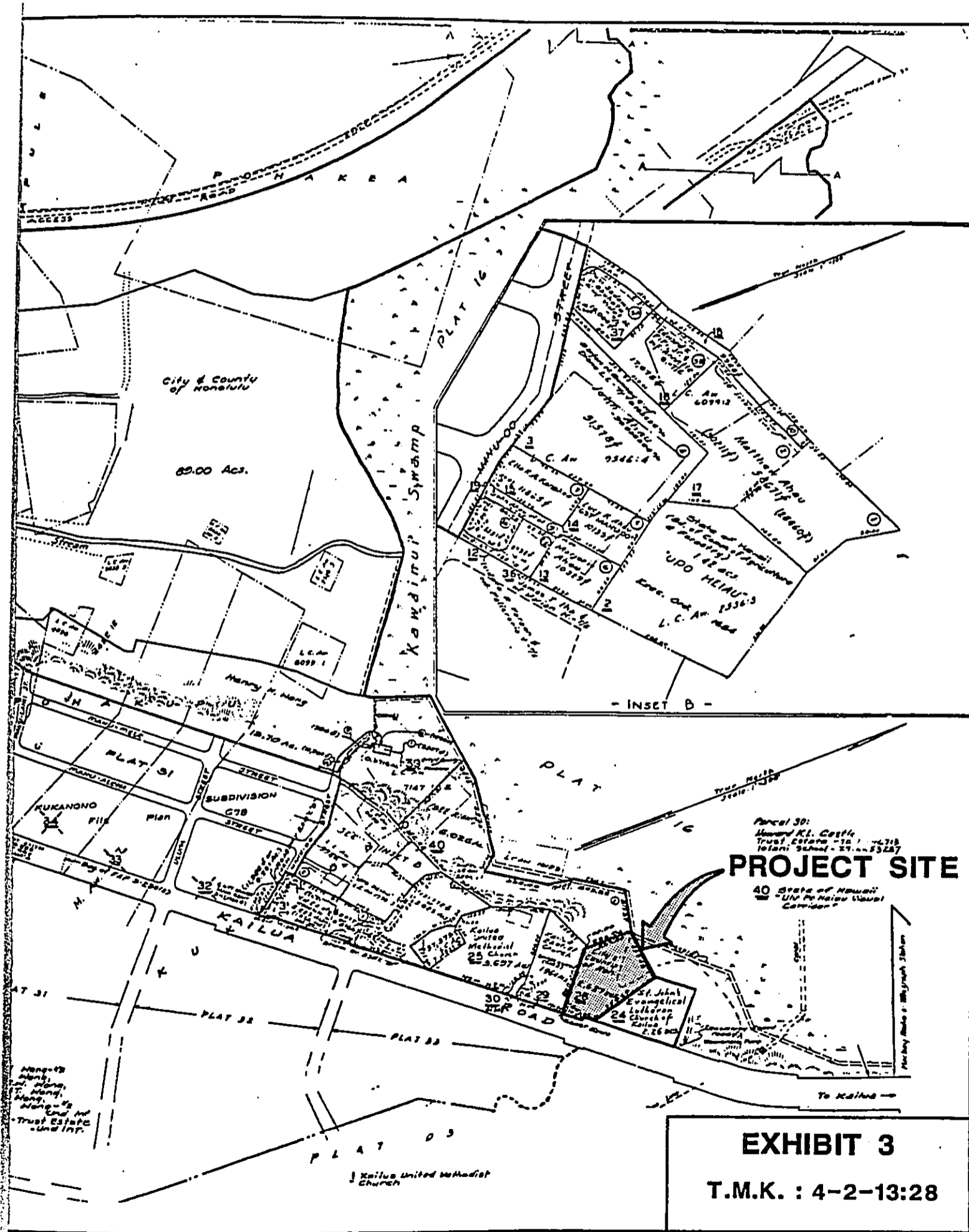


EXHIBIT 2
LOCATION MAP

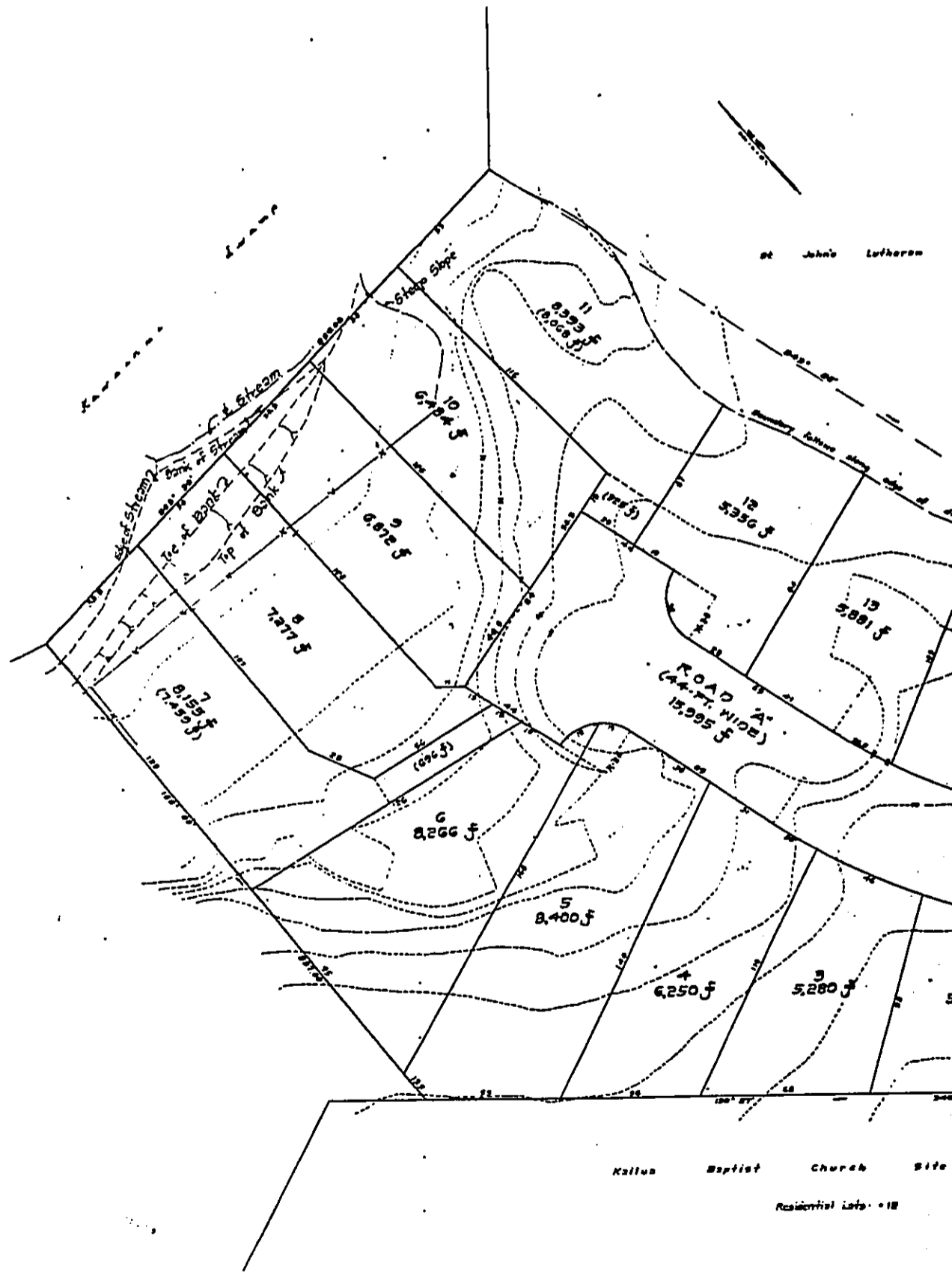
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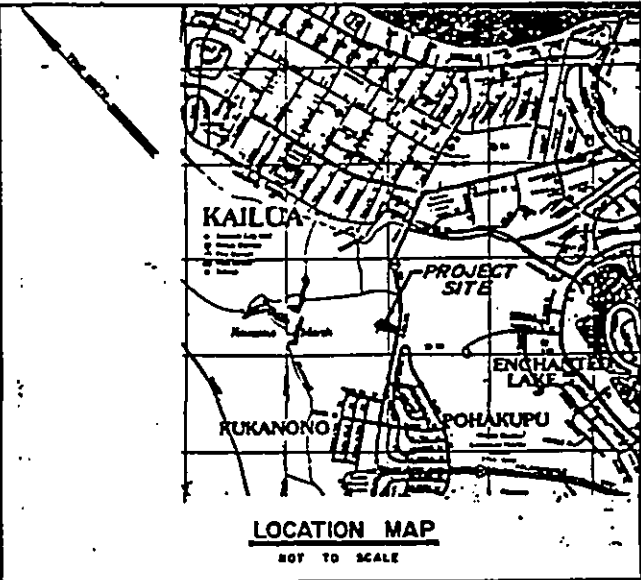
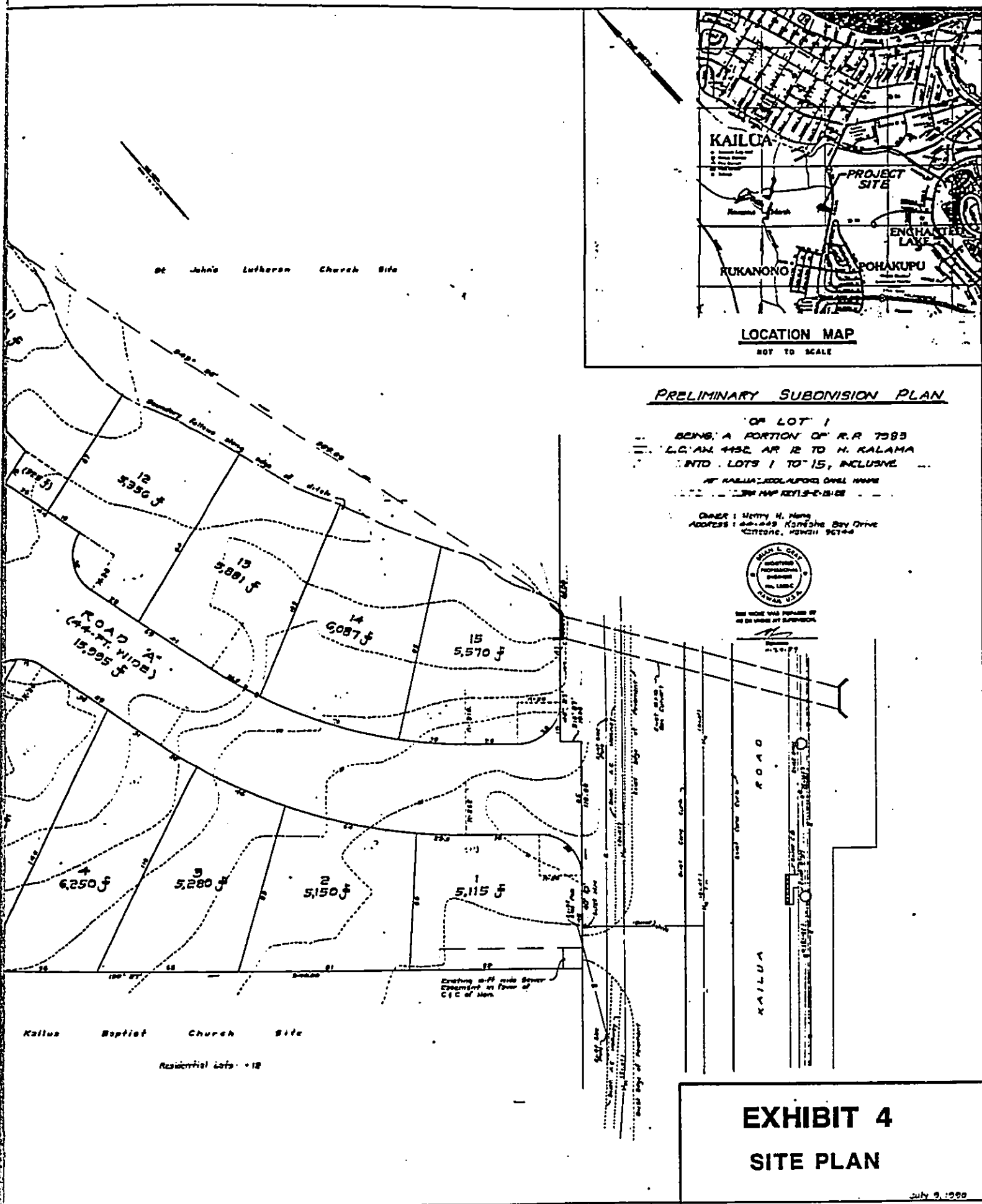


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NOTE:
Areas and Distances shown
are approximate only.

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PRELIMINARY SUBDIVISION PLAN

OF LOT 1
 BEING A PORTION OF R.R. 7583
 L.C. AN. 1432, AR 12 TO H. KALAMA
 INTO LOTS 1 TO 15, INCLUSIVE
 OF KAILUA, HAWAII, CIVIL MAP
 OF THE MAP KEYS 5-B-16

OWNER: MERRY M. HARRIS
 ADDRESS: 44-449 Kamehameha Bay Drive
 KAILUA, HAWAII 96741

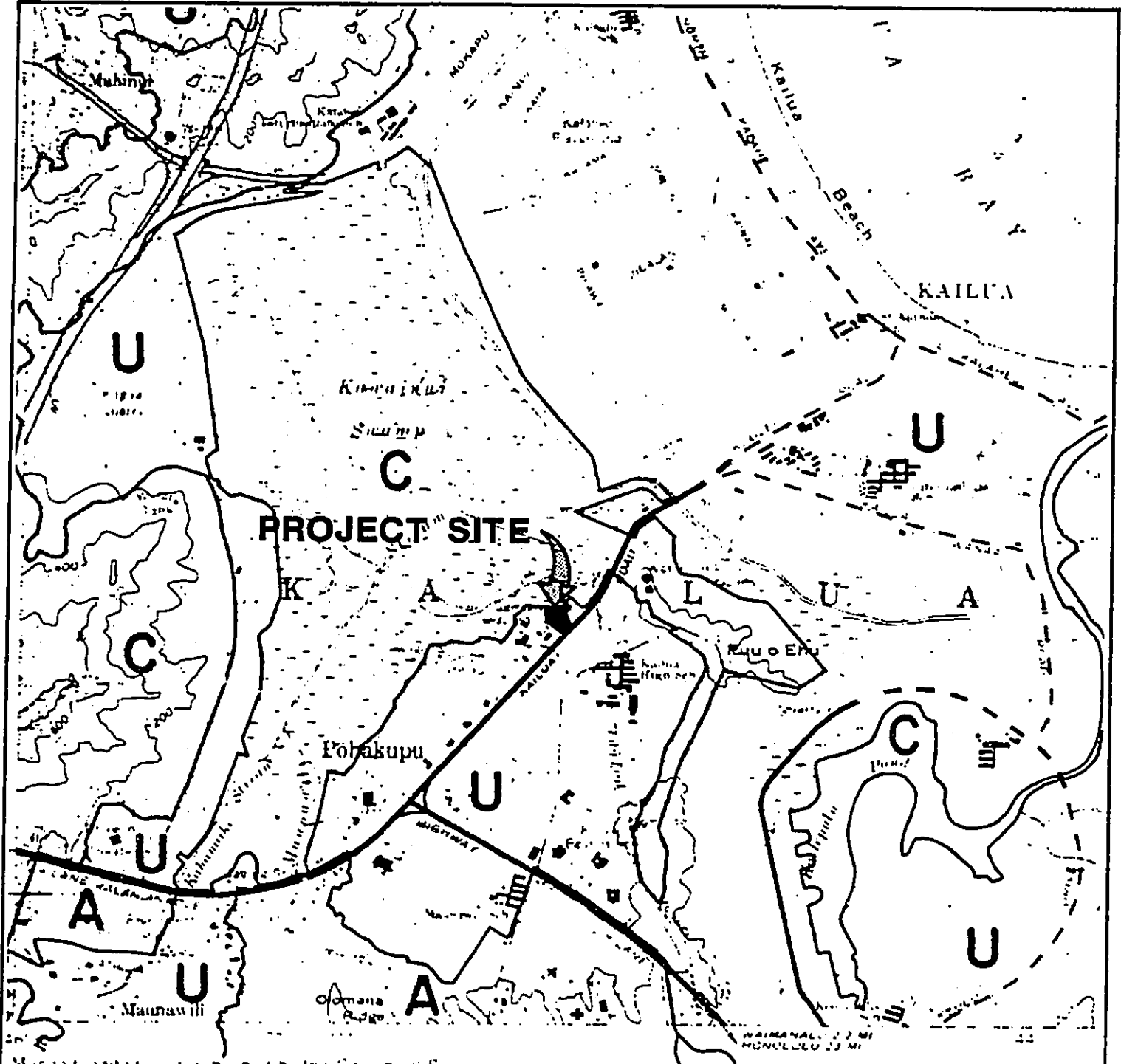


THIS MAP WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE: 7/9/90

**EXHIBIT 4
 SITE PLAN**

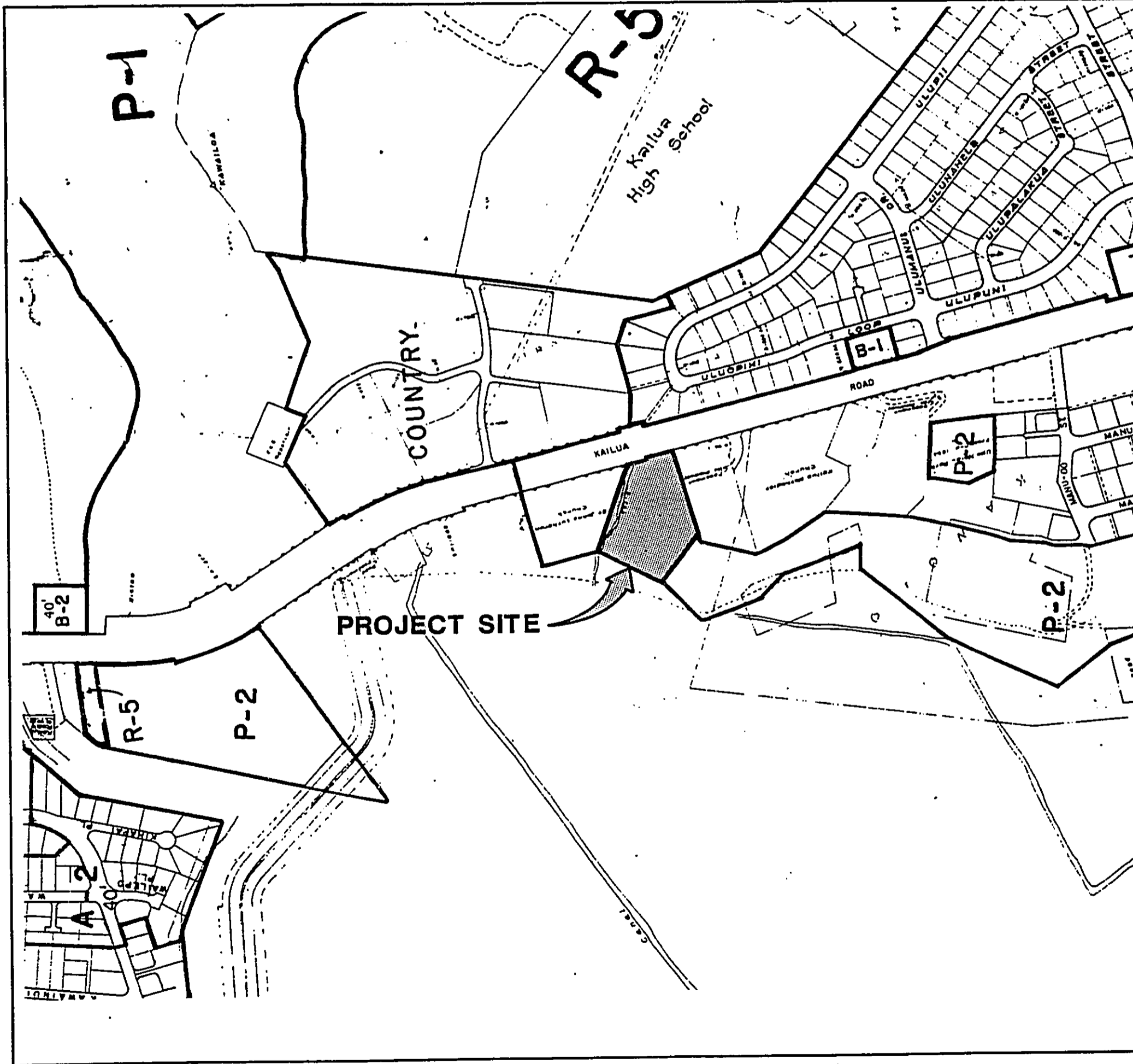
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Map data collected by the U.S. Geological Survey
 U.S. Geological Survey, Hawaiian Islands State Office
 Honolulu, Hawaii
 Original data on this map were collected by the U.S. Geological Survey
 from 1942 to 1945. The map was revised in 1948
 Revised topographic map of Kailua, Hawaii, U.S. Geological Survey
 1:50,000 scale, 1948 edition
 The information on this map is for general reference only
 It is not intended for use as a legal document
 The U.S. Geological Survey does not warrant the accuracy
 of the information on this map
 For more information, contact the U.S. Geological Survey
 Hawaiian Islands State Office, Honolulu, Hawaii

EXHIBIT 5
URBAN STATE LAND
USE DISTRICT MAP

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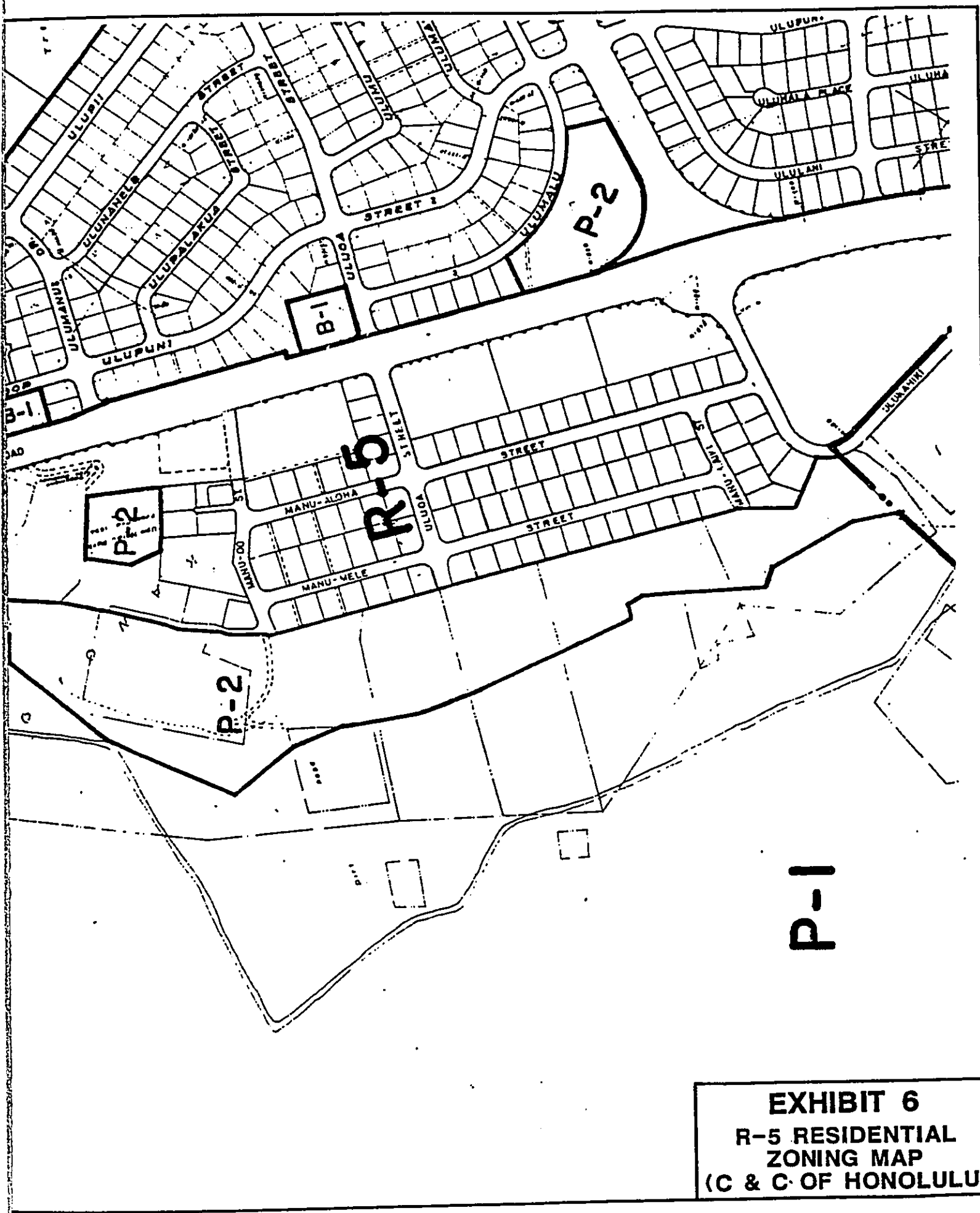
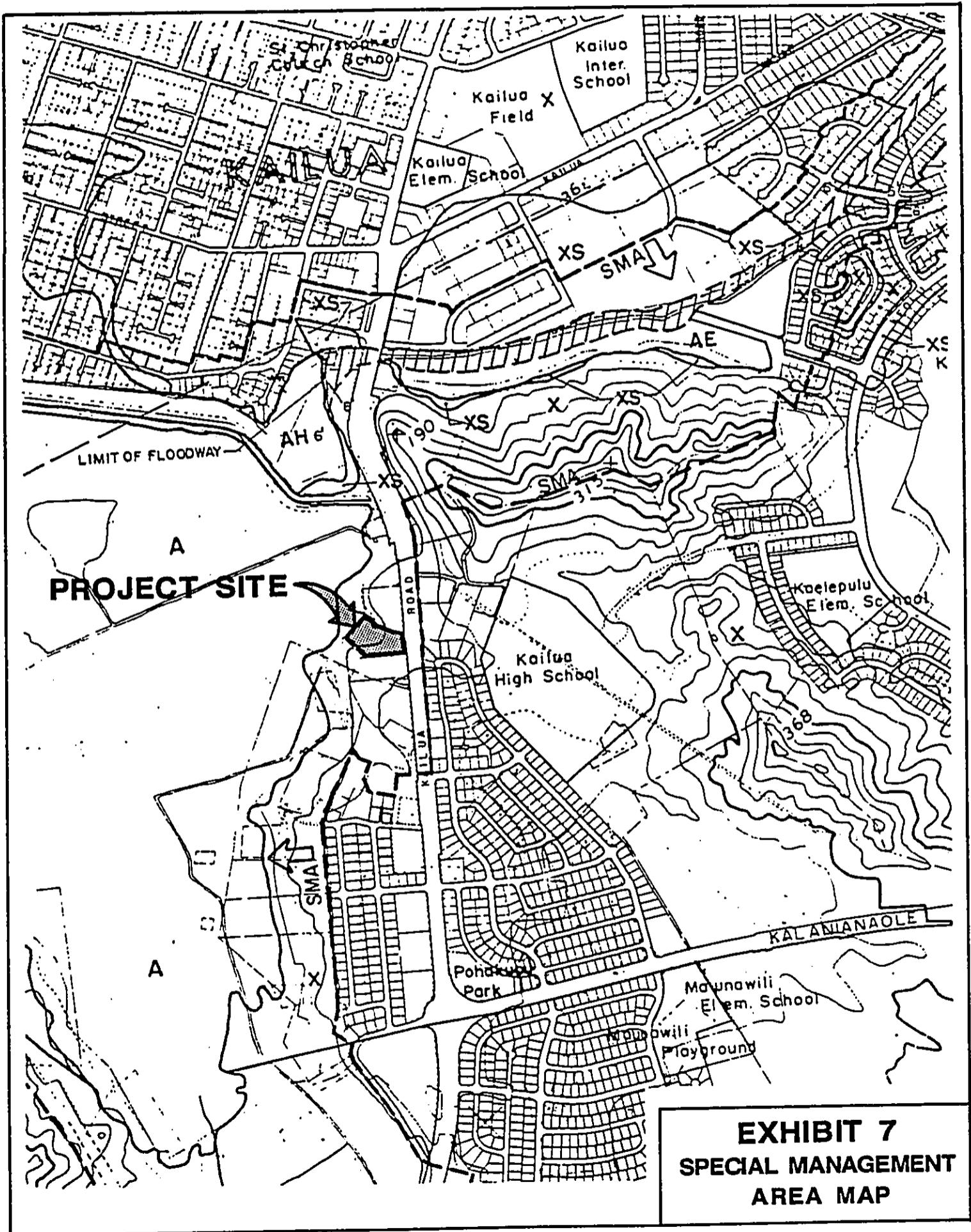
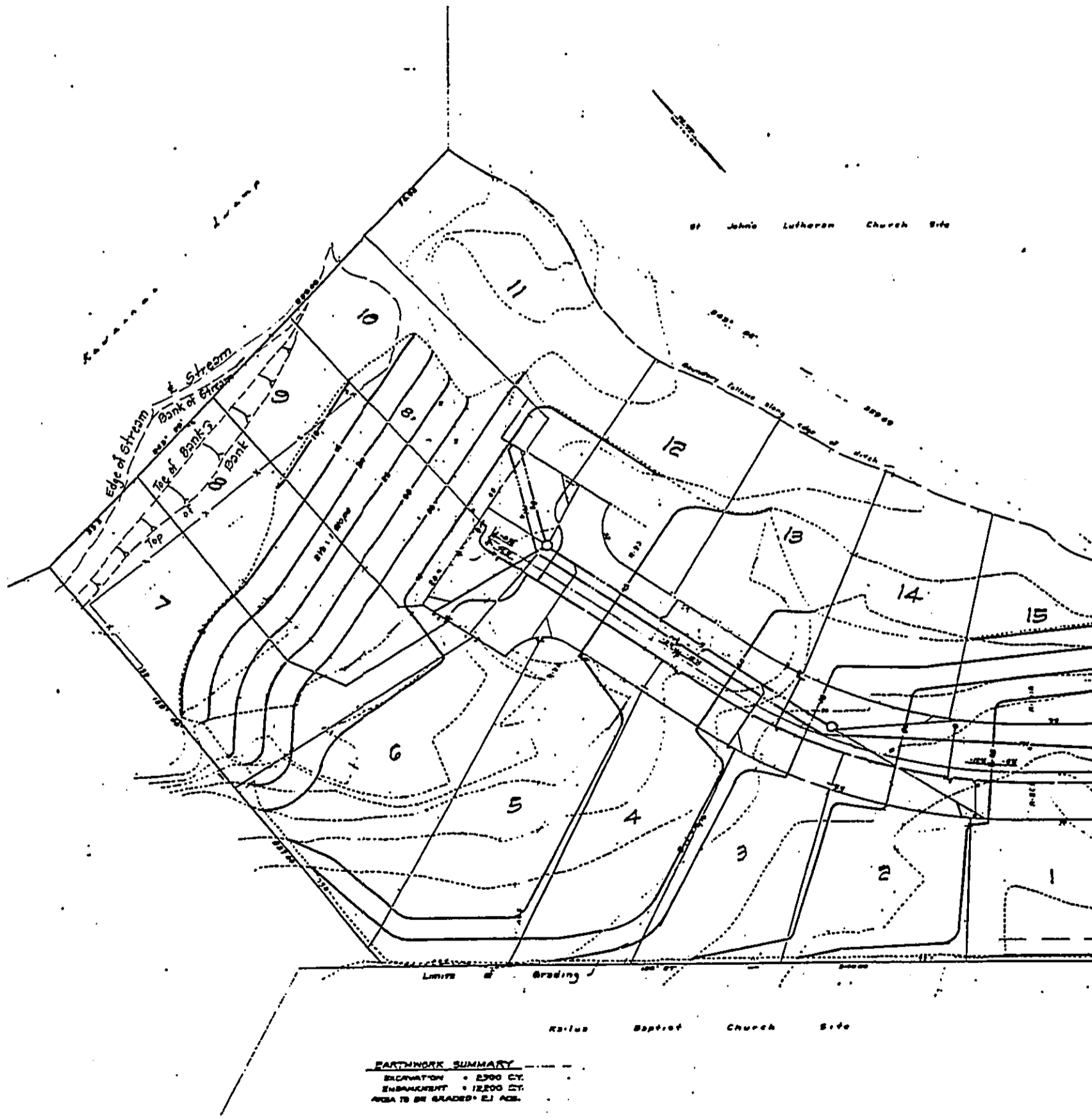


EXHIBIT 6
R-5 RESIDENTIAL
ZONING MAP
(C & C OF HONOLULU)

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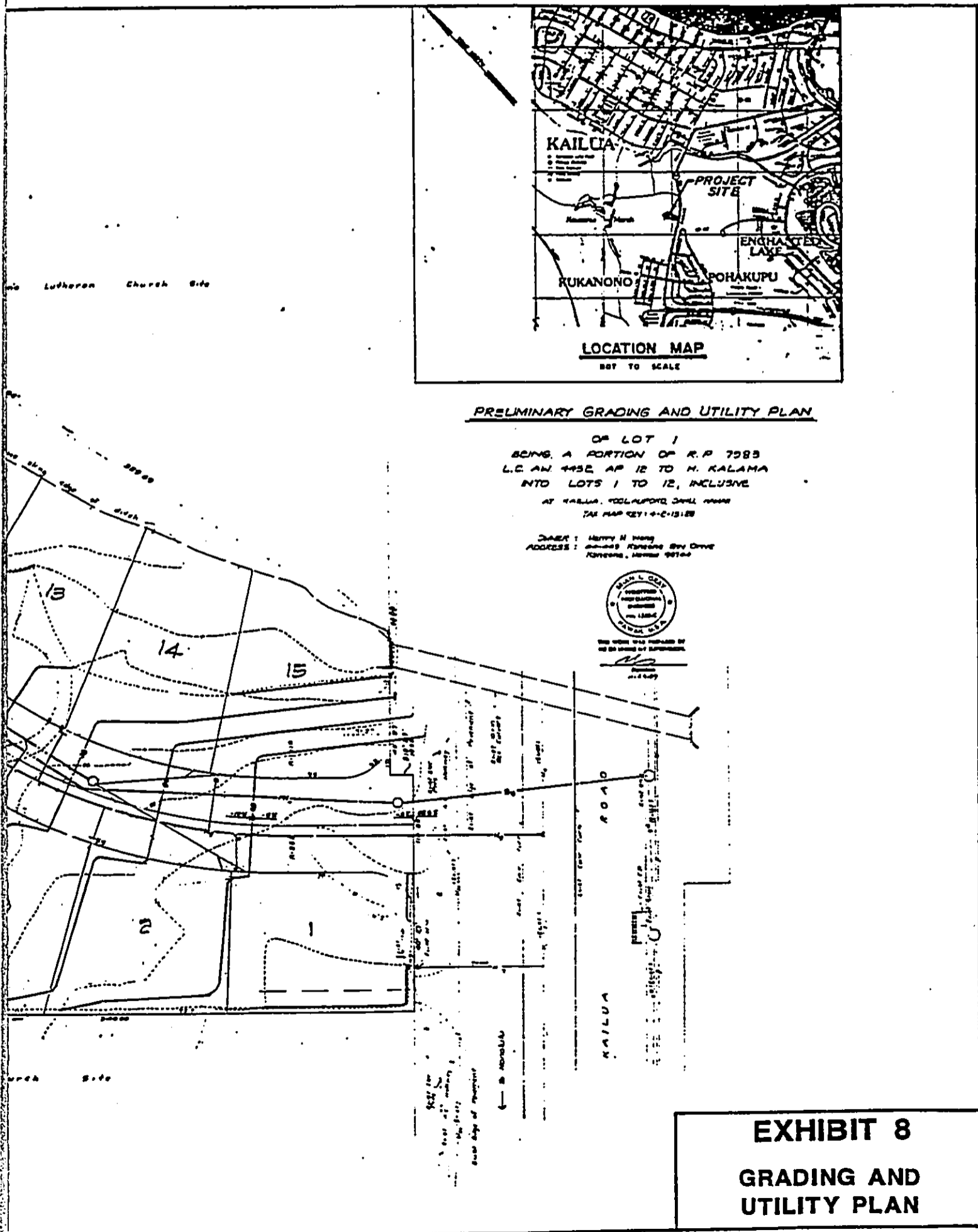


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NOTE:
 ALL DISTANCES SHOWN
 ARE APPROXIMATE ONLY.

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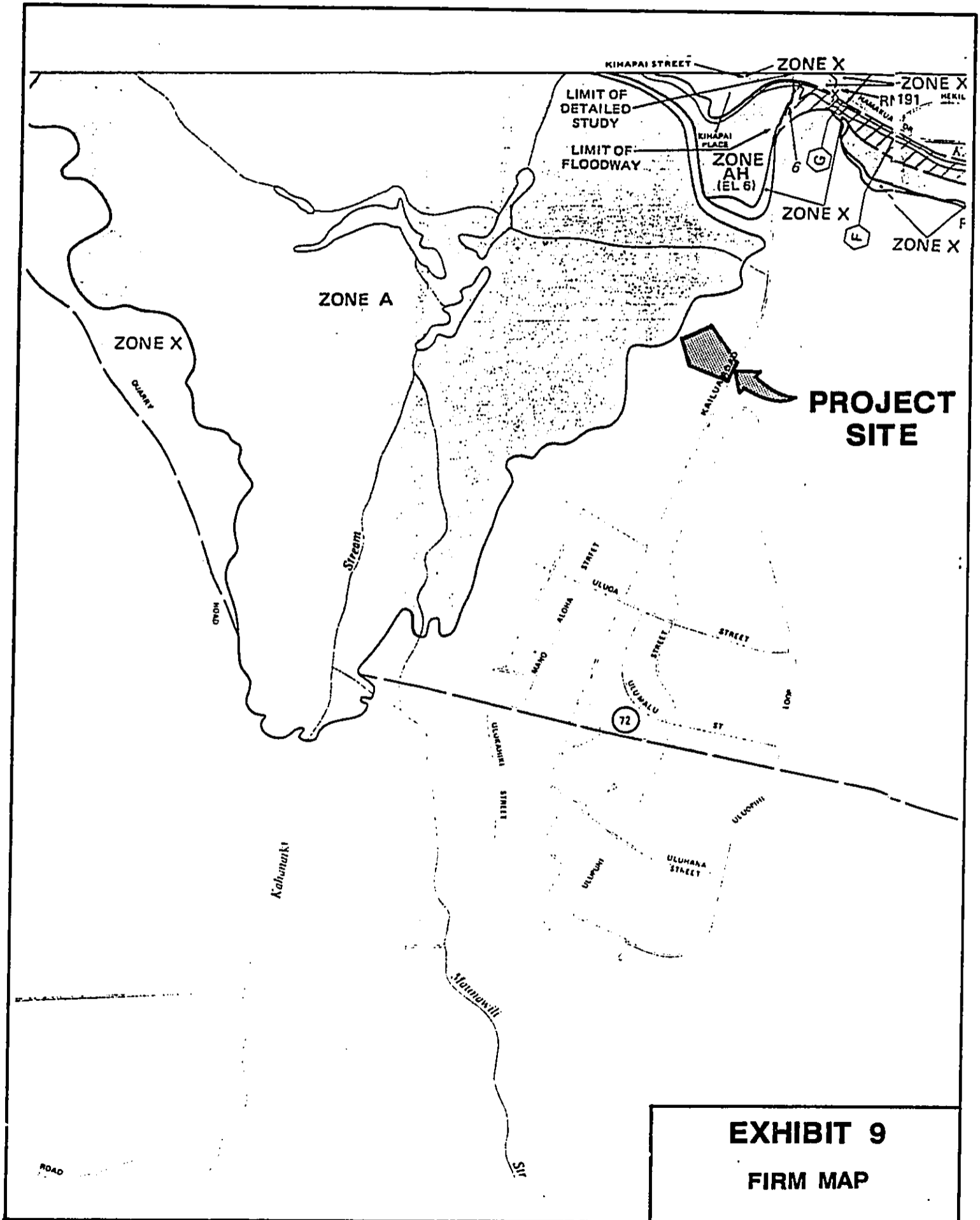


EXHIBIT 9
FIRM MAP

APPENDIX A

WETLAND BOUNDARY DETERMINATION

U. S. ARMY CORPS OF ENGINEERS

AND

BOTANICAL SURVEY REPORT



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

JUN 5 1990

REPLY TO
ATTENTION OF

Operations Division

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

Date: JUN 7 1990
File: _____
By: DH DB
Ccy: _____

Dear Mr. Bills:

This is a followup to your January 18, 1990 request for a wetland determination for the Pohakupu Subdivision, Kailua, Oahu, Hawaii, TMK: 4-2-13: 28. A joint site visit was conducted on February 9, 1990, and the boundary was tentatively set at the toe of the bank that extends just outside the fenceline. It was agreed that the boundary would extend to the point at which the toe intersects with the small stream or drainage ditch at the north/northeast corner of the property. At that point, the boundary would be set at the bank of the stream. We have annotated a copy (Encl) of your grading plans in red to show the boundary.

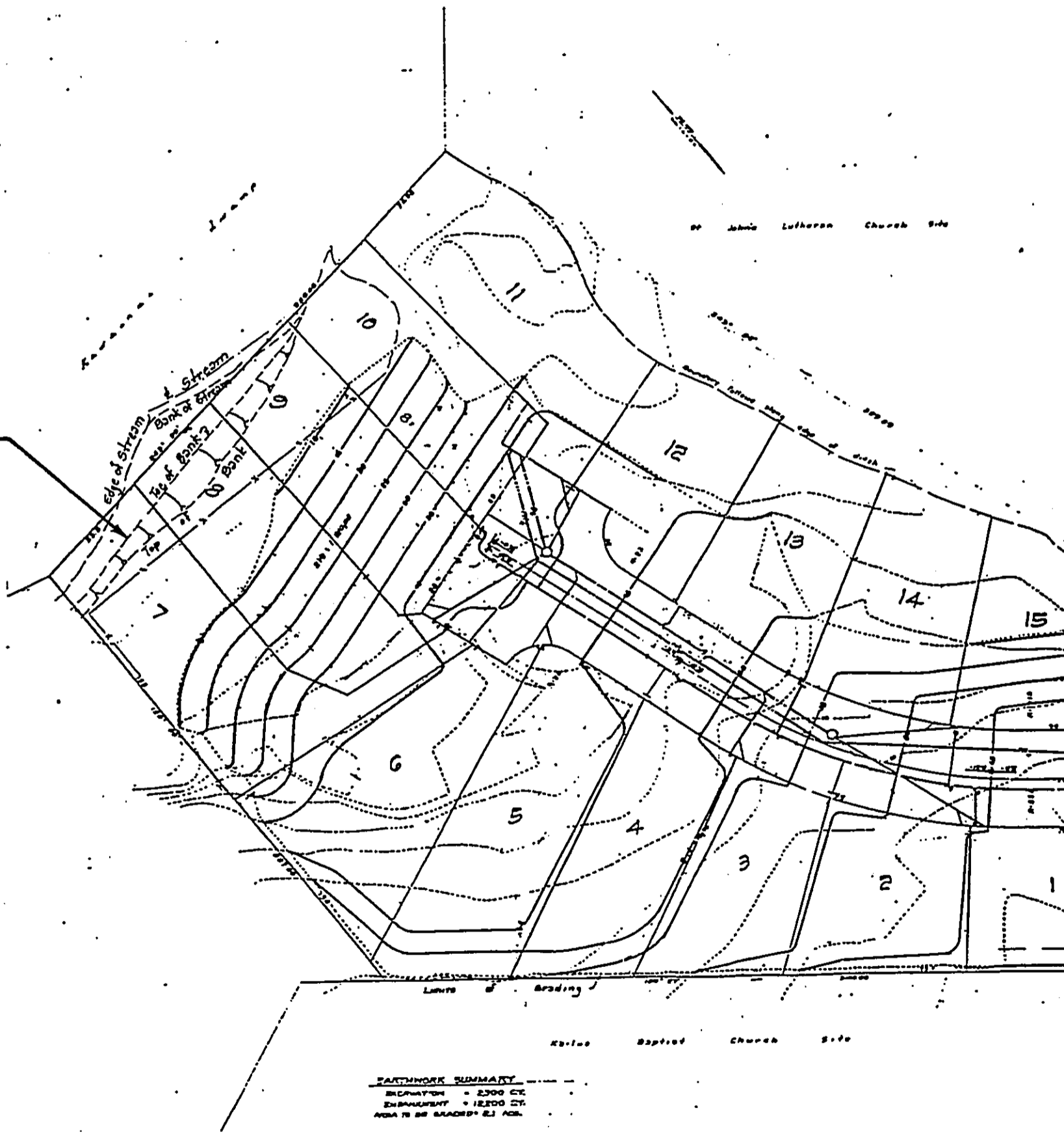
We understand that your proposed development will be confined to the area within the fenceline, which is well outside the wetland boundary. The remainder of the property which may be within the boundary would be considered part of a setback area in conjunction with the subdivision plans. Please keep us informed of your development plans so that a final determination of permit requirements can be made. If there are any questions, please contact Ruby Mizue at 438-9258.

Sincerely,

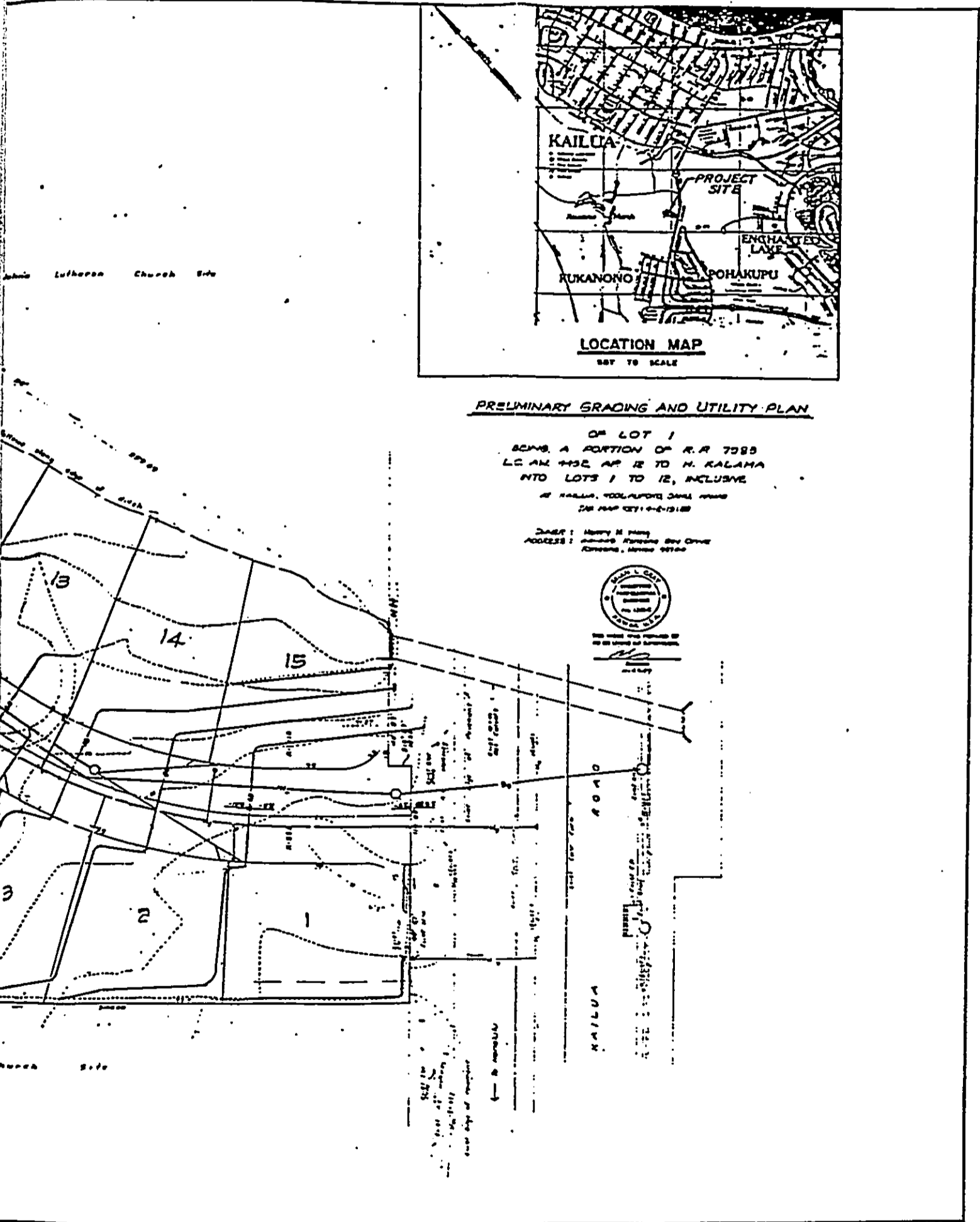
Stanley T. Arakaki
Stanley T. Arakaki
Chief, Operations Division
Directorate of Construction-Operations

Enclosure

WETLAND BOUNDARY
AS DETERMINED BY
CORPS OF ENGINEERS



NOTE:
Areas and Distances shown
are approximate only.



Date: received APR 19 1990
File: 1775
To: DH DB JSV

Charles H. Lamoureux, Ph.D. Actin
Botanical Consultant
3426 Oahu Avenue
Honolulu, Hawaii 96822
Tel. (808) 988-2255

March 28, 1990

David E. Bills
Gray, Hong, Bills & Associates
119 Merchant St., Suite 607
Honolulu, HI 96813

Dear Mr. Bills:

On February 3, 1990 I conducted a survey of the parcel of land at Pohakupu, Kailua, Koolaupoko, Oahu owned by Henry M. Wong and proposed for development. This parcel is located on the northwest of side of Kailua Road between the Kailua Baptist Church and St. John's Lutheran Church and is occupied by the abandoned Pohakupu Sewage Treatment Plant. The area proposed for development includes all the land currently inside the chain-link which surrounds most of the the property, plus a small area outside and north of the northeast corner of the fence, as well as a part of the small gully to the east of the fence-line.

The area inside the fence consists mostly of roadways and abandoned buildings and other structures such as concrete tanks and sludge pits, which formed part of the old sewage treatment system. Except in the northwest corner, where the land is relatively flat, the site is on a slope and the area has none of the qualities of a wetland. Such areas as are not occupied by built structures support a cover of weedy introduced plants, including vines (mainly the recent introduction Coccinea), herbs, grasses and shrubs, with a few shrubs and trees which remain from the old ornamental plantings (coconut, banana, African tuliptree, mountain apple, oleander, hibiscus, ti). No obligate wetland species were found here.

The gully east of the fence functions as a drainage ditch with an intermittent water flow. The main vegetation consists of trees such as Java plum and kukui. No obligate wetland species were found here.

The area north of the northeast corner of the fence slopes steeply down to the 15 foot contour, then more gradually to the 10 and 6 foot contours and beyond into Kawainui swamp. There is a rock wall along part of the steep slope. No obligate wetland species were found on the slope. The more gradually sloping land beyond, down to the small auwai which forms the drainage channel from the gully, is dominated by California grass (Brachiaria mutica), a facultative wetland species, and the moon flower (Ipomoea alba), not a wetland species. A few other weedy species also occur here as scattered plants, of which two are facultative wetland species, the creeping herb drymaria (Drymaria cordata) and the fern neke (Cyclosorus interruptus). There is a small kukui tree (Aleurites moluccana) on the far side of the auwai.

The precise wetland boundary is difficult to determine here. The gently sloping Californiagrass area between the base of the steep slope and the auwai may be periodically subject to flooding, based on the lack of koa haole and other woody shrubs which one might expect to find in a place which never flooded. However, no obligate wetland species were found here. Also, the fact that a small stream bed has been eroded in the surface (which would not have happened if the area were perpetually flooded), and the presence of a kukui tree on the far side of the stream bed would lead me to classify this area as not a wetland, and to suggest that a wetland boundary line might best be drawn on the far side of the auwai.

I hope that this information will be of assistance to you.

Sincerely,

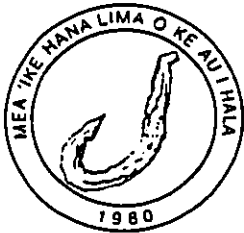


Charles H. Lamoureux

Charles H. Lamoureux

APPENDIX B

ARCHAEOLOGICAL RECONNAISSANCE
SURVEY REPORT



JOSEPH KENNEDY
Archaeologist

ARCHAEOLOGICAL CONSULTANTS
of
HAWAII

59-624 Pupukea Rd.
Haleiwa, Hawaii 96712
(808) 638-7442

Date Received FEB 22 1990
File: File 1756
DH DS

Mr. David Bills
Gray Hong Bills & Associates
119 Merchant St Suite 607
Honolulu, Hawaii 96813

February 15, 1990

RE: Archaeological Reconnaissance Survey for the Proposed Pohakupu Subdivision, TMK:4-2-13:28, Island of Oahu.

Dear Mr. Bills:

At the request of your office, Archaeological Consultants of Hawaii, Inc. has conducted a surface reconnaissance of the property described above. The subject parcel has been landscaped with lawn grass, banana and coconut trees which surround the now abandoned but still existing Pohakupu Sewage Treatment Plant Facility. This facility consists of blacktop roadways, several modular, hollow tile building units, and substantial tankage areas.

It is quite evident that the entire property has been subjected to wholesale landscape alterations to accommodate the different components of the sewage plant. This is especially true of the tankage areas where below grade excavation was necessary for the creation of the biofilters, culverts, rip-rap ditches, sewer lines and sludge beds.

Records at the Department of Land and Natural Resources, Historic Sites Division indicate that there are no previously recorded sites on this property no indication that this property has been examined archaeologically. The closest recorded site to the subject property is the Ulupo Heiau. This important structure is located, perhaps, one quarter of a mile away from the subject property and will not be in any way impacted by the proposed development.

In the course of our examination, we noticed the presence of several well formed basaltic walls, terraces and platforms. These structures are dry fit assemblages and are suggestive of precontact and early historic constructions.

D. Bills
2-15-90
Page 2.

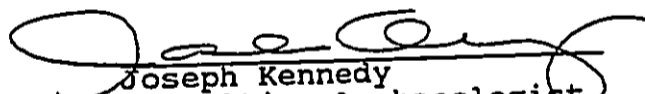
Apparently, this rock work method was still in use for public works projects when the Pohakupu Sewage Treatment Plant was constructed in 1958. It is clear that the rock work was built in conjunction with the plant for the walls follow the road and conform to the design configuration of the different structures, the recirculating pumping station rests upon a rock support obviously built specifically for that purpose, and so forth.

A final consideration is the proximity of the subject property to the Kawainui Marsh. Development plans indicate that there will be no construction on the lots fronting the swamp. This setback matches the U.S. Army Corps of Engineers wetland boundary.

In sum then, our examination indicates that the subject property has undergone substantial alterations related to the construction of the sewage treatment plant. These changes are such that both surface and subsurface potentials are all but precluded. For these reasons, it is our opinion that no further archaeological work is necessary on this property.

If there are any questions regarding this report, please feel free to contact me.

Aloha,


Joseph Kennedy
Consulting Archaeologist