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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION

869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

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February 28, 1991

OFC. OF ENVIRONMENTAL  
QUALITY CONTROL

Bruce S. Anderson, Ph.D.  
Acting Director  
Office of Environmental Quality Control  
Central Pacific Plaza  
220 South King Street, 4th Floor  
Honolulu, Hawaii 96813

Dear Dr. Anderson:

Subject: Service Road for U.S. Postal Service  
Lihue Airport  
Lihue, Kauai, Hawaii  
State Project No. AK1045-16

In conformance with Chapter 343, Hawaii Revised Statutes, enclosed are four (4) copies of the Negative Declaration together with the completed Document for Publication in the OEQC Bulletin for the subject project. Please publish a Negative Declaration notice for the proposed action in the next issue of the OEQC Bulletin.

Our review of the environmental assessment indicates that the proposed action will not create any significant adverse environmental impacts. The anticipated effects of the project, based on the assessment, are not significant to warrant the preparation of an environmental impact statement.

Should there be any questions, please have your staff contact Mr. Stephen Wong at 836-6405.

Very truly yours,

Edward Y. Hirata  
Director of Transportation

Enclosures: Negative Declaration (4)  
Document for Publication

cc: MLA Associates (Mr. David Yokoyama)  
C. Kim & Associates, Inc. (Mr. Calvin Kim)

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1991-03-23-KA-FEA

**FILE COPY**

AIRPORTS DIVISION  
DEPARTMENT OF TRANSPORTATION  
STATE OF HAWAII

NEGATIVE DECLARATION

\* SERVICE ROAD FOR U.S. POSTAL SERVICE  
LIHUE AIRPORT  
LIHUE, KAUAI, HAWAII

PROJECT NO. AK1045-16

Prepared Pursuant to  
Chapter 343, HRS and Chapter 200, Title 11  
Administrative Rules, State of Hawaii

PROPOSING AGENCY: AIRPORTS DIVISION  
Department of Transportation  
Honolulu International Airport  
Honolulu, Hawaii 96819

RESPONSIBLE OFFICIAL:

*Owen Miyamoto*  
Owen Miyamoto  
Airports Administrator

FEB 27 1991

Date

Prepared by

Calvin Kim & Associates, Inc.  
1017 Palm Drive  
Honolulu, Hawaii 96814

ENVIRONMENTAL ASSESSMENT/DETERMINATION

PROJECT: Service Road for U.S. Postal Service  
State Project No. AK 1045-16

LOCATION: Lihue, Kauai, Hawaii  
Tax Map Key: Fourth Division 3-5-1:Por. 8

PROPOSING AGENCY: Department of Transportation  
Airports Division  
State of Hawaii

CONTACT PERSON: Mr. Stephen Wong  
Phone: 836-6405

APPROVING AGENCY: Governor  
State of Hawaii

DETERMINATION:  EIS REQUIRED  EIS NOT REQUIRED

AGENCIES AND ORGANIZATIONS CONSULTED  
IN PREPARING THE ASSESSMENT

FEDERAL: \* United States Postal Service

STATE OF HAWAII: Department of Transportation, Highways Division  
\* Department of Health  
Department of Land & Natural Resources  
\* Department of Business, Economic Development & Tourism  
\* Office of Environmental Quality Control

COUNTY OF KAUAI: \* Planning Department  
\* Department of Public Works  
Department of Water  
\* Fire Department

OTHER: MLA Associates

\*Denotes consulted parties who responded in writing (see Appendix B).

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SECTION 1

DESCRIPTION OF THE PROPOSED PROJECT

The Airports Division, State Department of Transportation, proposes to construct roadway improvements at the Lihue Airport fronting the makai side of Kapule Highway to serve a proposed post office. As a condition of a land exchange between the Federal government and the State of Hawaii, the Airports Division is responsible for the design and construction of the service road for the new post office and also the acceleration/deceleration lanes and storage lane on Kapule Highway.

The improvements will be constructed adjacent to a 5.5 acre site (TMK: 3-5-01:142) on which the planned Lihue Main Post Office Annex will be constructed by the U.S. Postal Service. The project site is shown in Figure I and Figure II.

As a future project, the State is considering connecting the service road to the terminal loop road to provide an alternate entrance to the Airport Terminal.

A. Purpose of the Project

The purpose of the project is to provide a service road to the planned Main Post Office Annex which will be constructed on the 5.5 acre parcel southwest of the Lihue Airport Terminal.

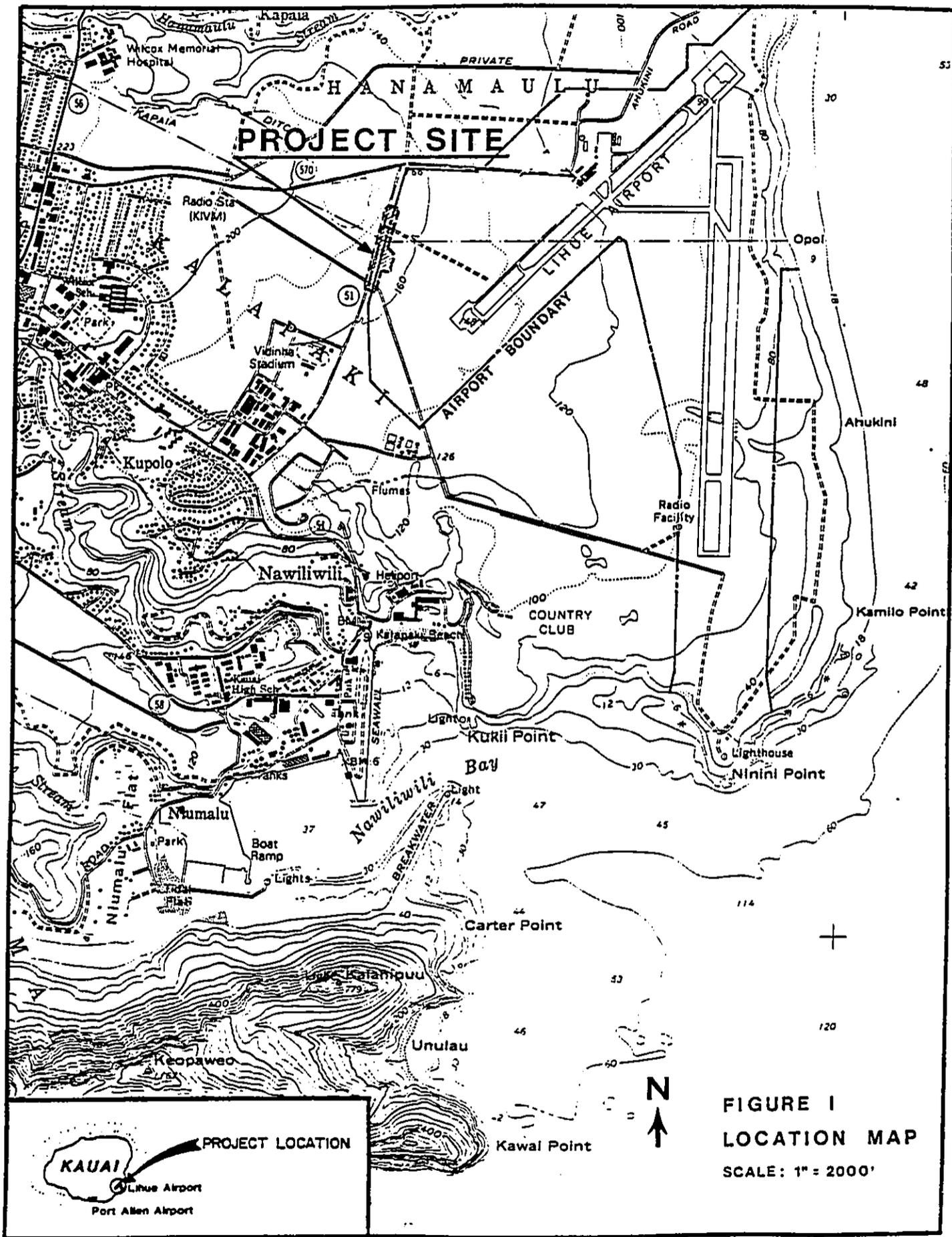
B. Technical Characteristics

As shown in Figure II, the J-shaped service road will connect Kapule Highway with the post office site. Technical characteristics for the roads are as follows:

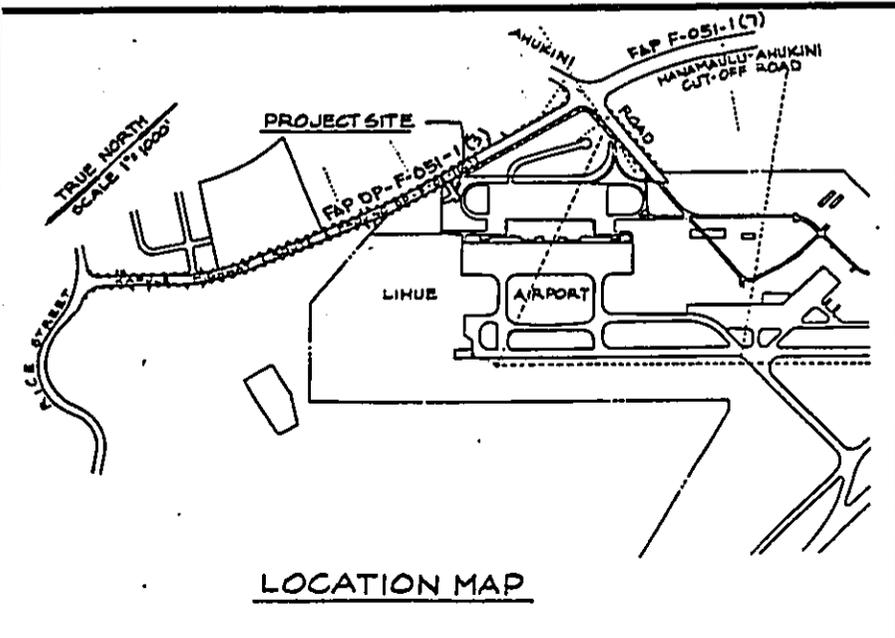
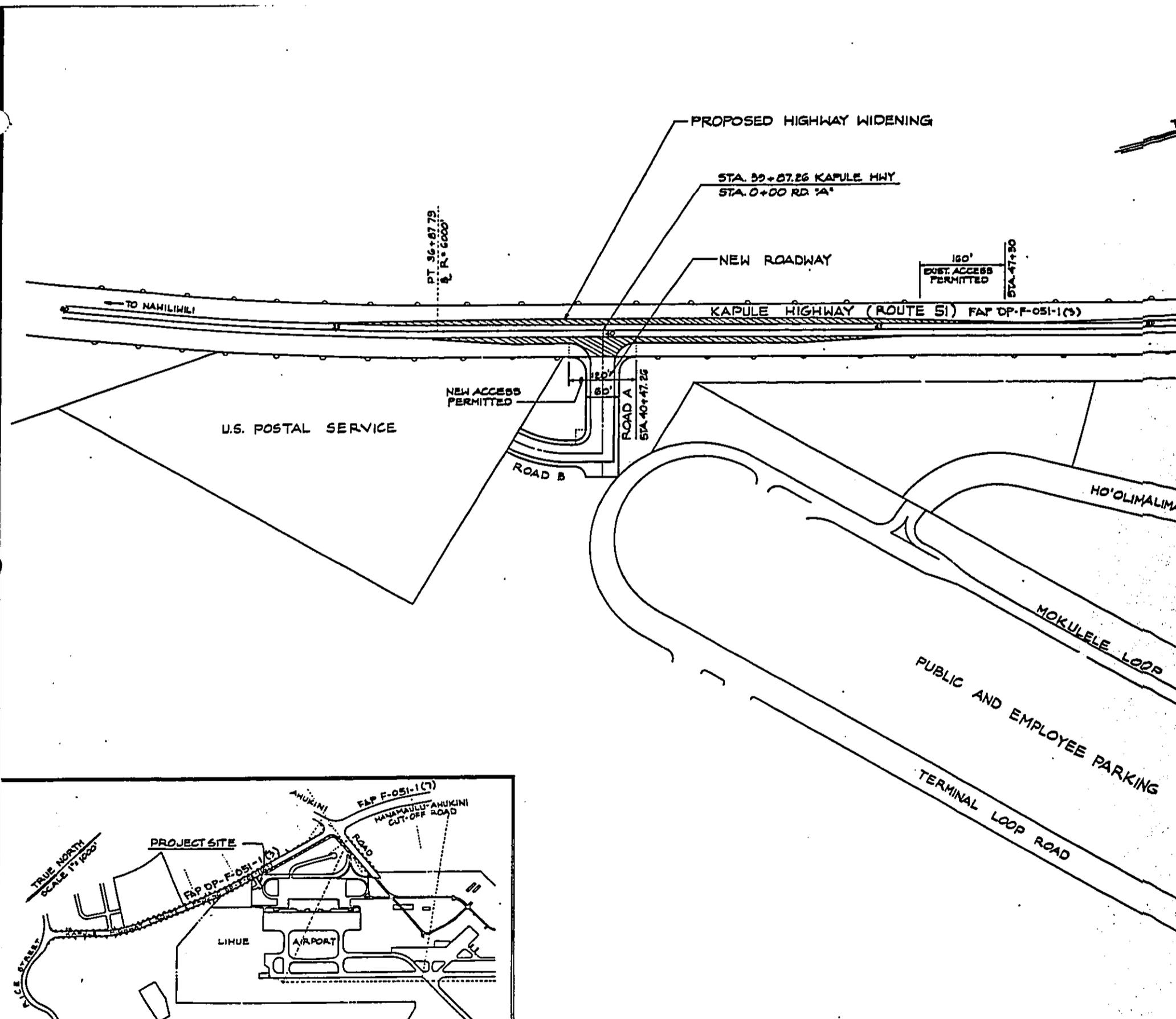
	<u>Road A</u>	<u>Road B</u>
Right-of-Way	60 feet	50 feet (Easement 9)
Length	270 feet	170 feet
Pavement Width	44 feet	34 feet
Shoulders*	8 feet	8 feet
Ingress/Egress Lanes	1/2	1/1
Paving Material	A.C.	A.C.

\*Includes concrete curb, gutter, and sidewalk.

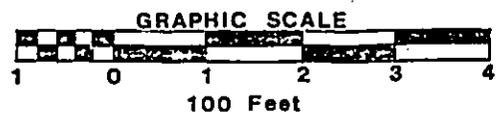
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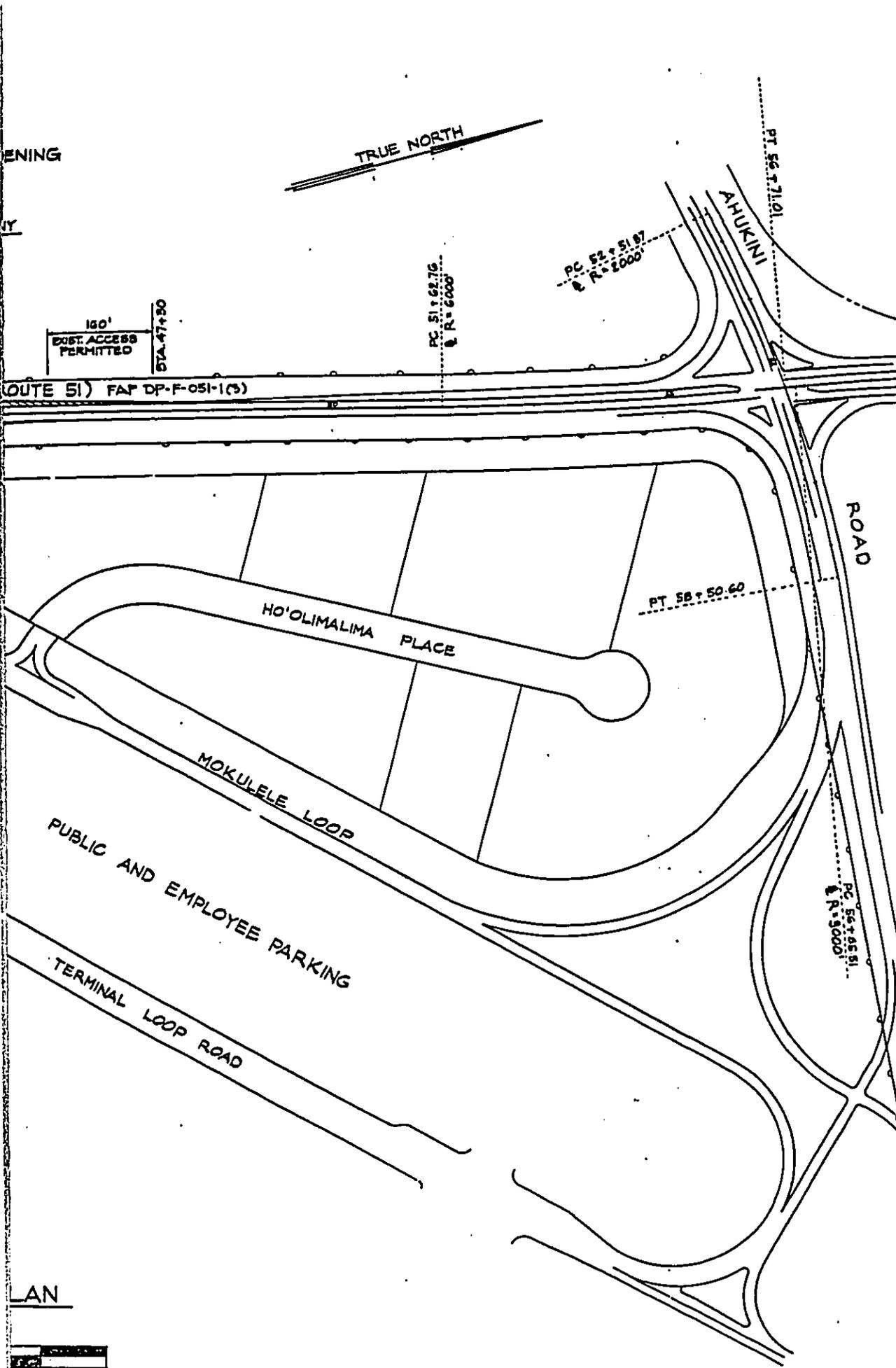
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GENERAL PLAN



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DSGN.	DRWN.	CHKD.	AP
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KEY PLAN / NOTES

NO.	DATE	REVISIONS

PROJECT TITLE :

LIHUE AIRPORT COMPLEX  
POST OFFICE ACCESS ROAD

LIHUE, KAUAI, HAWAII

PROJECT NO. :

STATE PROJECT NO. AK-104

SHEET TITLE :

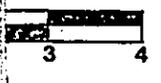
LOCATION MAP  
GENERAL PLAN

FIGURE II

DATE

DWG NO

PLAN



Kapule Highway will be widened in both directions on either side of the proposed connection. Highway widening will accommodate acceleration/deceleration lanes in the Hanamaulu direction; a left turn storage lane into the service road in the Nawiliwili bound direction; and a left turn taper onto Kapule Highway in the Nawiliwili direction. The requirements for the highway widening are outlined in the attached Traffic Impact Study.

Egress onto Kapule Highway will be stop controlled.

A Department of Water, County of Kauai, 12-inch water main will be extended along Road "A" and the water meter now serving the airport will be relocated to a location outside the road pavement area. No other utility relocations are required.

C. Economic Characteristics

The cost of the project is estimated at \$0.7 million and will be financed with State funds. Construction will commence on or about June 1991 and should be completed by February 1992.

## SECTION 2

### DESCRIPTION OF THE AFFECTED ENVIRONMENT

The project area is bounded by vacant land to the south (the Post Office site), Kapule Highway to the west, and (Lihue Airport) Terminal Loop Road to the east, and car rental facilities to the north.

Vacant and unused, the property is well landscaped with a lawn and various types of shrubs and trees. A 5-foot high wire fence separates it from the Post Office parcel and a 6-8 foot high landscaped earthen berm buffers it from Kapule Highway.

Except for the landscaped berm, the terrain is relatively flat with a slight west to east slope.

There are no recorded archaeological features on the premises.

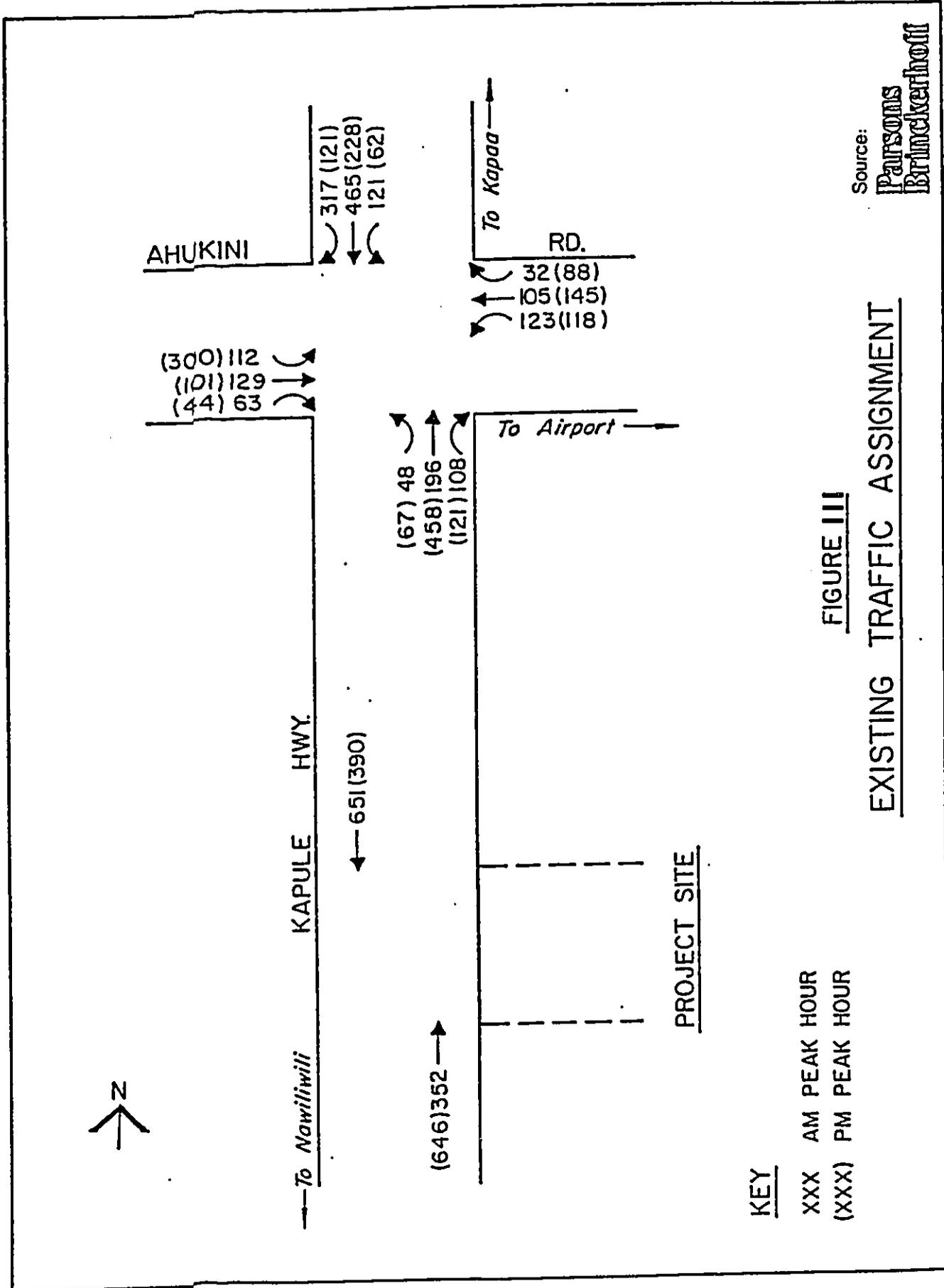
Flora consist of ornamental landscape plantings including Formosan koa (Acacia confusa), coconut (Cocos nucifera), plumeria (Plumeria sp.), weeping banyan (Ficus benjamina), bougainvillea (Bougainvillea sp.), wedelia (Wedelia trilobata), and St. Augustine grass. The landscaped berm is planted in zoysia grass with bougainvillea spotted at intervals atop the berm.

No animals were observed on-site at the time of our field inspection (September, 1990).

In the vicinity of the project, Kapule Highway, State Route 51, under jurisdiction of the State Department of Transportation, has two 12-foot travel lanes (one in each direction) and 10-foot wide paved shoulders. The posted speed limit on the highway is 50 miles per hour which is reduced to 35 miles per hour near the airport (Parsons, 1990).

Traffic counts and field observations at the intersection of Kapule Highway and Ahukini Road were taken in mid October 1990. The a.m. peak hour occurred from 7:15 - 8:15 and the p.m. peak is identified at 3:45 - 4:45. Existing traffic volumes are presented in Figure III.

With the exception of a Water Department water meter along Kapule Highway fronting the project site and underground irrigation lines, there are no utility systems in the project area.



SECTION 3

POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES  
TO MITIGATE ADVERSE EFFECTS

The proposed rights-of-way (and the overall area) have been modified extensively by previous agricultural use and more recently by grading, filling, and landscaping associated with improvements to the airport. Because the land has already been severely altered, further site work should not generate significant adverse impacts.

The grassy areas will be grubbed and specimen trees and shrubs removed for planting elsewhere at the airport. A section of the earthen berm will be "cut" for access purposes and some bougainvillea shrubs may be removed to enhance sight distance in both directions on Kapule Highway. None of the plant materials to be removed are threatened or endangered and are used extensively in landscaping of the airport terminal building and grounds.

Should subsurface archaeological remains be unearthed, construction work in the immediate area shall cease and proper historic authorities notified for disposition of the finds.

Fugitive dust will be raised during necessary grubbing and grading activities. Dust generation cannot be avoided and State of Hawaii Department of Health Administrative Rules (Chapter 60, Section 26) stipulate control measures that are to be employed to reduce fugitive dust. Generally, wetting down of exposed areas with water or other dust suppressants is the common control method. The Contractor also shall keep the job site and adjacent roadways free of mud and debris.

Construction equipment will emit minor quantities of pollutants in the form of exhaust emissions (carbon monoxide and nitrogen dioxide) and aldehyde odors which will be dispersed by the prevailing winds.

Noise, an inevitable consequence of construction work, will be generated during the construction period. Road projects in general require almost exclusive use of heavy construction equipment and noise in the range of 78-90 dBA can be expected for each improvement phase (e.g. land clearing, paving). Construction noise, like fugitive dust, cannot be avoided and all activities will comply with noise provisions of Title 11, Administrative Rules of the State Department of Health.

In the long-term, vehicle traffic to and from the post office would contribute to an overall increase in noise within the area. No adverse affects are expected because there are no nearby residential developments to be affected by vehicle traffic and because the existing acoustical environment is already conditioned by noise from passing vehicles, helicopters (blade slap), and jet aircraft.

A Board of Water Supply water meter will be relocated outside the highway right-of-way without severely affecting flow or service.

Potential traffic impacts were evaluated for two cases: Case A in which the planned postal facility would function as a distribution center with traffic generated only by postal trucks and employees; and Case B, where distribution functions would be augmented by customer services such as post office boxes. All traffic in either case would access the postal facility from Kapule Highway via the new T-Intersection.

Analysis of the unsignalized T-intersection shows that the left turns off the highway into the project would incur little or no delay and would likely experience Level of Service A operations. With a single approach lane the delays to existing project traffic would range from average (Level of Service C) to very long (Level of Service E). The provision of separate lanes for the left and right turn movements out of the project would reduce the delays and improve operating conditions to Level of Service C or better for the right turn movement. The results of the unsignalized intersection analysis are summarized in Table I. (The six levels of service, from 'A' (best) to 'F' (worst) are defined in Appendix A, Traffic Impact Study.)

TABLE I

KAPULE HIGHWAY AND PROJECT SERVICE ROAD  
UNSIGNALIZED INTERSECTION  
LEVEL OF SERVICE RESULTS

	<u>CASE A</u>		<u>CASE B</u>	
	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>
<u>Kapule Highway</u>				
Left turn movement	A	A	A	A
<u>Project Service Road</u>				
Shared lane	C	D	D	E
Separate lanes				
Left turn movement	D	D	E	E
Right turn movement	A	B	A	C

Source: Parsons Brinckerhoff Quade & Douglas, Inc., 1990.

At the new T-Intersection of Kapule Highway with the project service road, an unsignalized intersection would have adequate capacity to serve the expected project traffic volumes with or without the inclusion of customer services at the post office. A left turn storage lane on Kapule Highway should be installed to minimize delays to through traffic in the Nawiliwili direction. In addition, the provision of separate left and right turn lanes on the project service road approach would alleviate expected delays for the project traffic exiting the site.

The traffic impact study does not evaluate potential impacts that may be created if the service road is connected to the existing terminal loop road to provide a second entrance to the Airport Terminal.

The study will be updated should the State decide to connect the service road to the existing terminal loop road.

SECTION 4

ALTERNATIVES TO THE PROPOSED PROJECT

The service road is designed to service a planned postal facility on an adjoining lot to the south. The road lies on State property within an easement in favor of the post office. Thus the roadway will be constructed at a planned location reserved for the prescribed purpose.

The roadway has been sited in a location where it would cause minimal environmental impact and maximize convenient and safe access for postal employees and customers. This location was required by and previously approved by the Kauai Planning Department.

Adequate design measures such as a left-turn taper from Kapule Highway onto the service road and separate left and right turn lanes onto Kapule Highway will facilitate traffic movement and minimize expected delays.

The sum of these considerations and measures suggest that there are no real alternatives to relocating or redesigning the service road.

SECTION 5

FINDINGS AND RECOMMENDATION

Chapter 200 (Environmental Impact Statement Rules) of Title 11 Administrative Rules of the State Department of Health specifies criteria for determining if an action may have a significant effect on the environment. The relationship of the proposed project to these criteria is discussed below.

- (1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The proposed rights-of-way (and project site) have been modified extensively and are devoid of any natural or cultural resources.

- (2) Curtails the range of beneficial uses of the environment;

The proposed project will commit a vacant, under used, and inaccessible (to the public) site, to a use that better enhances development of a desired postal facility on an adjoining parcel.

- (3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;

The project will not conflict with long-term state environmental policies or goals.

- (4) Substantially affects the economic or social welfare of the community or State;

(See (2) above.)

- (5) Substantially affects public health;

The project will not substantially affect public health. Fugitive dust and construction noises may be considered short-term nuisances but can be mitigated by measures described in this Assessment.

- (6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

The project will not result in substantial secondary impacts such as population changes or effects on public facilities.

- (7) Involves a substantial degradation of environmental quality;

Environmental quality will not be substantially degraded.

- (8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The roadway project will be built concurrently with a planned postal facility and will be the sole access to the facility.

- (9) Substantially affects a rare, threatened or endangered species, or its habitat;

There are no rare, threatened, or endangered species (plant or animal) on the project site.

- (10) Detrimentially affects air or water quality or ambient noise levels; or

Noise and dust are unavoidable short-term consequences of construction but can be mitigated by complying with public health regulations governing air pollution and noise.

- (11) Affects on environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

The project is neither located within nor will it affect an environmentally sensitive area.

Based on the above criteria, potential environmental impacts are primarily construction related and can be mitigated by measures described in this Assessment. Therefore, an Environmental Impact Statement is not required and a Negative Declaration is recommended for the proposed Service Road for U.S. Postal Service.

REFERENCES

Arthur Kimbal Thompson and Associates, Ltd. June 1990. United States Postal Service Lihu'e, Kaua'i, Hawai'i Maui Post Office Annex. Concept Submittal 8927.100.

Parsons, Brinckerhoff. December, 1990. Traffic Impact Study, Lihue Post Office, Lihue, Hawaii. Prepared for Calvin Kim and Associates, Inc.

APPENDIX A  
TRAFFIC IMPACT STUDY

**TRAFFIC IMPACT STUDY**

**LIHUE POST OFFICE**

*Lihue, Kauai, Hawaii*

Prepared for:  
**CALVIN KIM & ASSOCIATES, INC.**

Prepared by:  
**PARSONS BRINCKERHOFF  
QUADE & DOUGLAS, INC.**

December 1990

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## LIHUE POST OFFICE

### INTRODUCTION

The United States Postal Service has proposed to construct a new post office in Lihue, Kauai. Initially, the post office will be a distribution center to disperse container shipments of mail to the local carriers. Customer services may be provided at a later date.

This report identifies the expected traffic impacts of the proposed project on the nearby intersection of Kapule Highway and Ahukini Road and at the project access road connection to Kapule Highway. Existing morning (AM) and afternoon (PM) peak hour conditions were analyzed. Future traffic volumes for two project conditions, without and with customer services, were also evaluated. Mitigation measures are provided, as needed.

## EXISTING CONDITIONS

The project site is located on the makai side of Kapule Highway, near the Lihue Airport (Figure 1) on the island of Kauai. Presently, the project site is vacant, but covered with well-maintained grass. The property has no public access.

### Roadway System

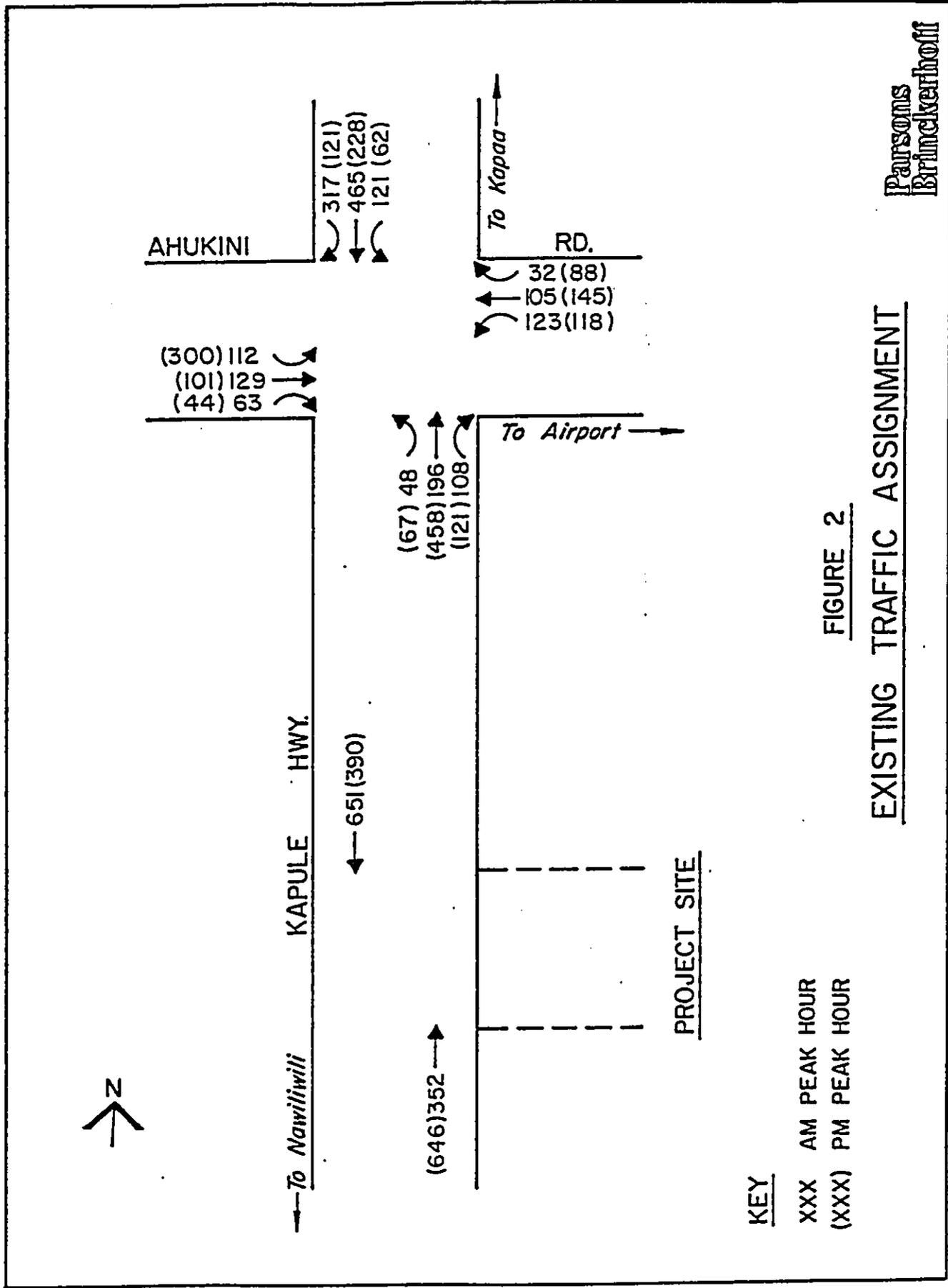
The two-lane Kapule Highway, State Route 51, connects Rice Street in Lihue with Kuhio Highway in Hanamaulu. The section of Kapule Highway between Ahukini Road and Kuhio Highway was completed about two years ago; the completion of the highway introduced an alternate route between Lihue and Kapaa. Previously, the two-lane Kuhio Highway served as the only link between Lihue and the communities to the north. In the vicinity of the project Kapule Highway has two 12-foot travel lanes, one in each direction, and 10-foot wide paved shoulders. The posted speed limit on the highway is 50 miles per hour, which is reduced to 35 miles per hour near the airport.

Ahukini Road, a two-lane state roadway, begins at Kuhio Highway and terminates in the airport area. At the signalized cross-intersection of Kapule Highway and Ahukini Road each approach is channelized for the separate left turn, through, and right turn movements.

### Traffic Conditions

Manual traffic counts and field observations at the Kapule Highway intersection with Ahukini Road were taken on a weekday in mid-October 1990. The AM peak hour occurred from 7:15 - 8:15 a.m., while the PM peak hour is identified as 3:45 - 4:45 p.m. Levels of Service are defined in the appendix. The existing traffic volumes are given in Figure 2.

The intersection of Kapule Highway and Ahukini Road was analyzed by the Operations Analysis methodology for signalized intersections from the 1985 Highway Capacity Manual<sup>1</sup> (HCM). The existing demand-actuated traffic signal is programmed to provide a leading, protected left turn phase for Ahukini Road traffic; left turns are also permitted, but must yield right-of-way when the through movement has the green phase. The Kapule Highway traffic has a single phase for all movements. The analysis indicates that the intersection operates with good conditions at Level of Service B during the AM and PM peak hour. The field observations concur with the results of the quantitative analysis.



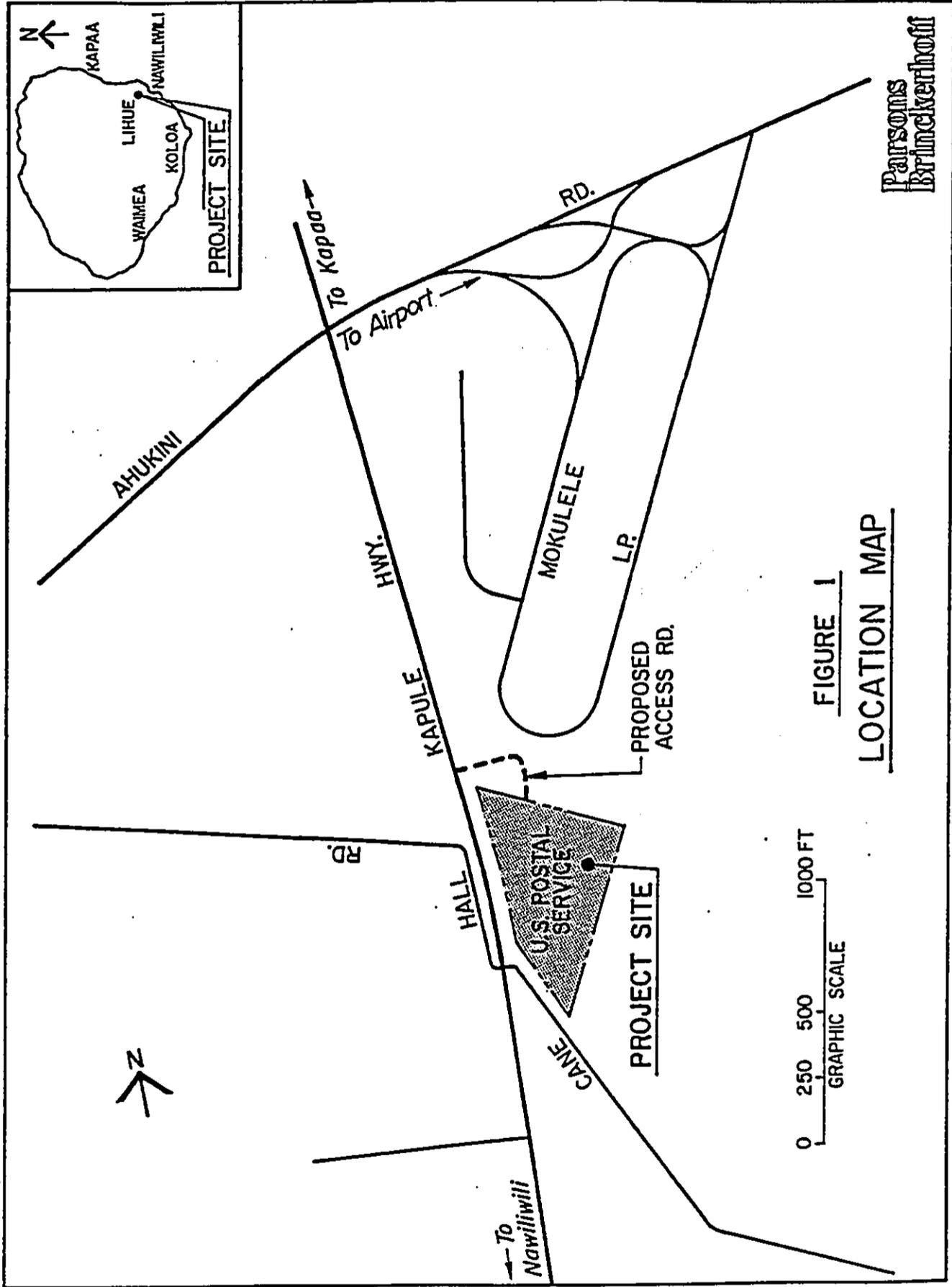


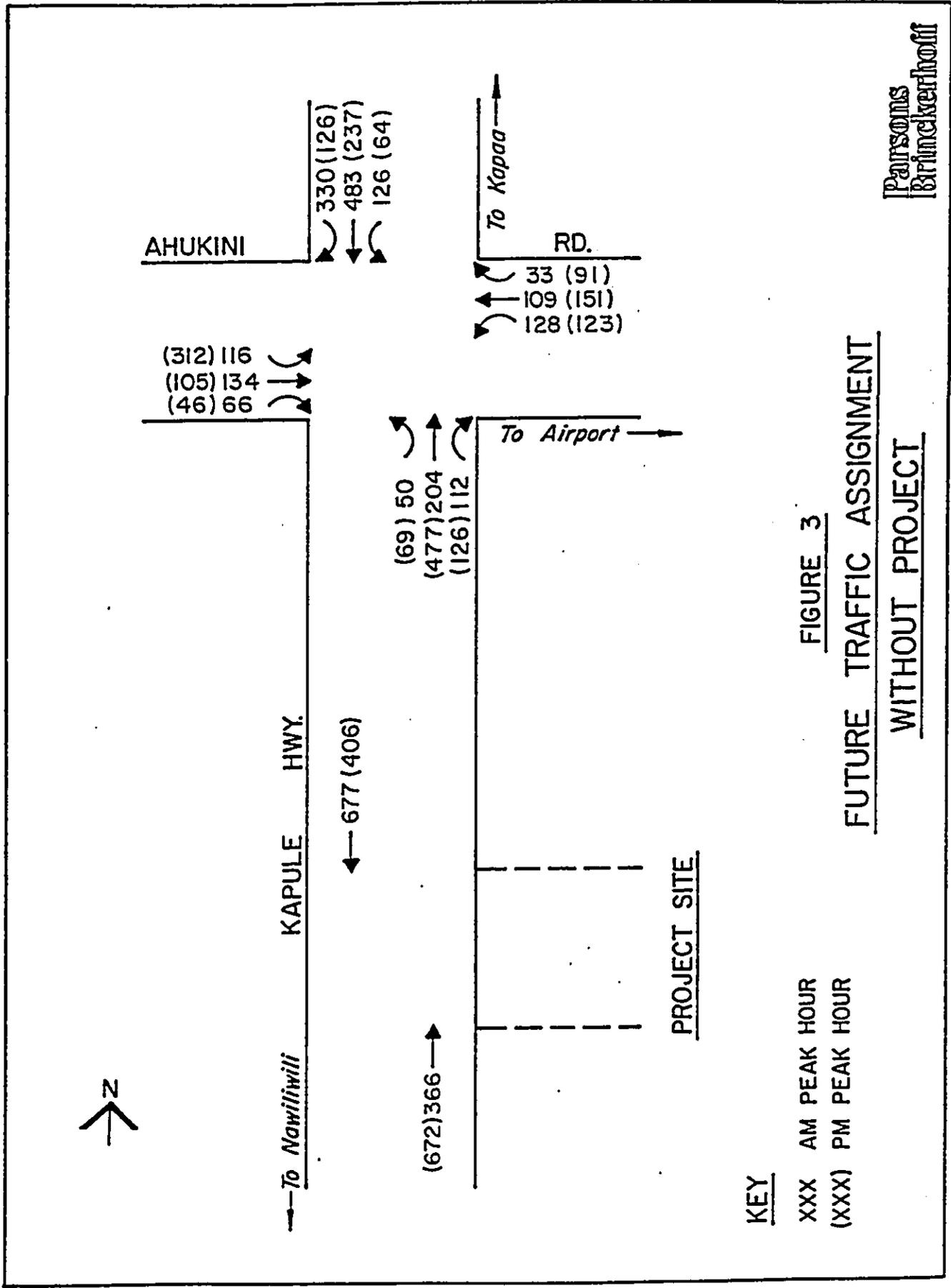
FIGURE 1  
LOCATION MAP

Parsons  
Brinckerhoff

## FUTURE TRAFFIC CONDITIONS WITHOUT THE PROJECT

Future traffic conditions refer to the year 1991 when the post office facility would be completed and occupied. The existing traffic volumes were increased by four percent to account for growth from nearby projects or in regional traffic conditions. The growth factor of four percent was derived from traffic data presented in the 1987 Lihue Traffic Circulation Study<sup>2</sup>. The future traffic assignment without the project is given in Figure 3.

The Kapule Highway/Ahukini Road intersection was re-analyzed using the 1985 HCM procedures. The results of the analysis shows that the intersection would remain at Level of Service B in the AM and PM peak hours for future conditions without the project.



## PROJECT TRAFFIC

The estimates for two project traffic conditions, Case A and Case B, were developed from traffic data provided by the U.S. Postal Service. Case A represents the planned operations upon opening of the post office facility, where the facility would be a distribution center. Containers of mail would be dispersed to the local carriers at this site. Services to customers would not be included in these operations. The traffic generated by Case A conditions include only postal trucks and employees.

In the future the post office may add customer services, such as post office boxes. Case B provides an estimate of traffic volumes with the inclusion of customer services at the site. The postal truck and employee traffic identified in Case A has been assumed to remain the same. Approximately 800 customers may be serviced in an average day; this results in 1,600 entering and exiting trips per day. The study assumed that six percent of the customer trips would occur during the AM peak hour with twelve percent visiting the post office facility in the PM peak hour. Table 1 shows the estimates of traffic volumes expected to be generated by the post office facility under both development scenarios.

Table 1

### PROJECT TRAFFIC (Vehicles per Hour)

	<u>Case A</u>	<u>Case B</u>
AM Peak Hour		
Enter	27	80
Exit	7	50
PM Peak Hour		
Enter	7	103
Exit	27	123

---

Case A: Mail distribution only

Case B: Mail distribution and customer service

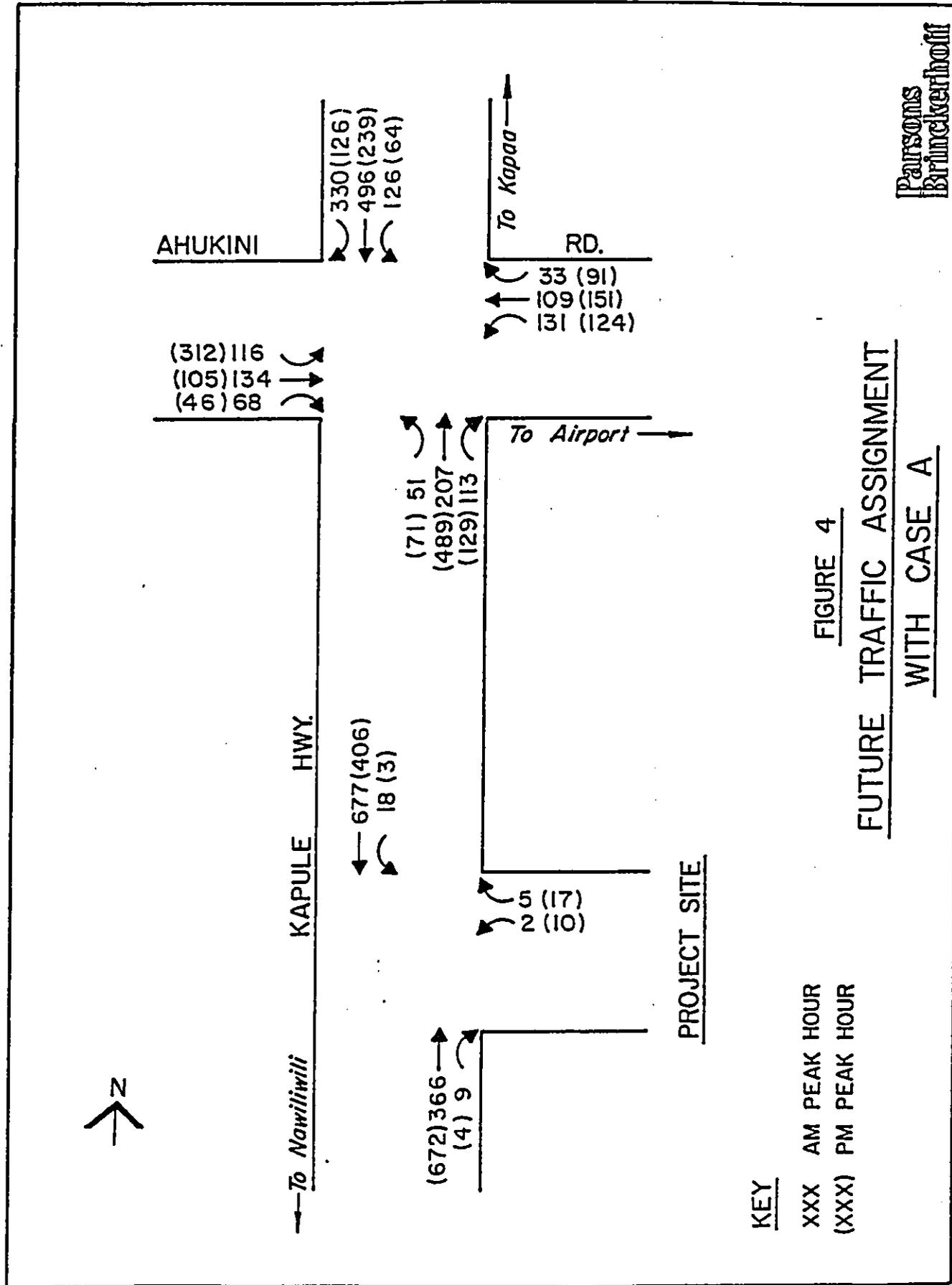
### Project Traffic Impacts

Project traffic would access site via Kapule Highway. In order to assess the expected project impacts, the project traffic volumes were added onto the future traffic assignment, which is shown in Figures 4 and 5 for Case A and Case B, respectively. The study assumed that the post office traffic would have a distribution similar to the existing traffic volumes and distributed the project traffic accordingly.

With the expected increases in traffic volumes resulting from the project traffic, the analysis of the signalized intersection of Kapule Highway and Ahukini Road reveals that the Level of Service B would not change. No improvements would be needed at this intersection to accommodate the increased volumes under either development scenario.

With the connection of the post office access road to Kapule Highway a T-new intersection would be created approximately 1,670 feet south of the Ahukini Road intersection. The unsignalized intersection methodology from the 1985 HCM was utilized in the analysis of the new intersection. The results of the analysis shows that the left turns off the highway into the project would incur little or no delay and would likely experience Level of Service A operations. With a single approach lane the delays to exiting project traffic would range from average (Level of Service C) to very long (Level of Service E). The provision of separate lanes for the left and right turn movements out of the project would reduce the delays and improve operating conditions to Level of Service C or better for the right turn movement. The results of the unsignalized intersection analysis are summarized in Table 2.

The need for a left turn storage lane on Kapule Highway in the Nawiliwili direction was evaluated by procedures described in Highway Research Board Record 211<sup>3</sup>. The evaluation showed that a left turn storage lane of 125 feet should be provided on Kapule Highway; in accordance with the Manual on Uniform Traffic Control Devices<sup>4</sup> for a design speed of 60 miles per hour, a 300-foot taper should also be included. The installation of the left turn lane would minimize delays to through traffic on the highway.



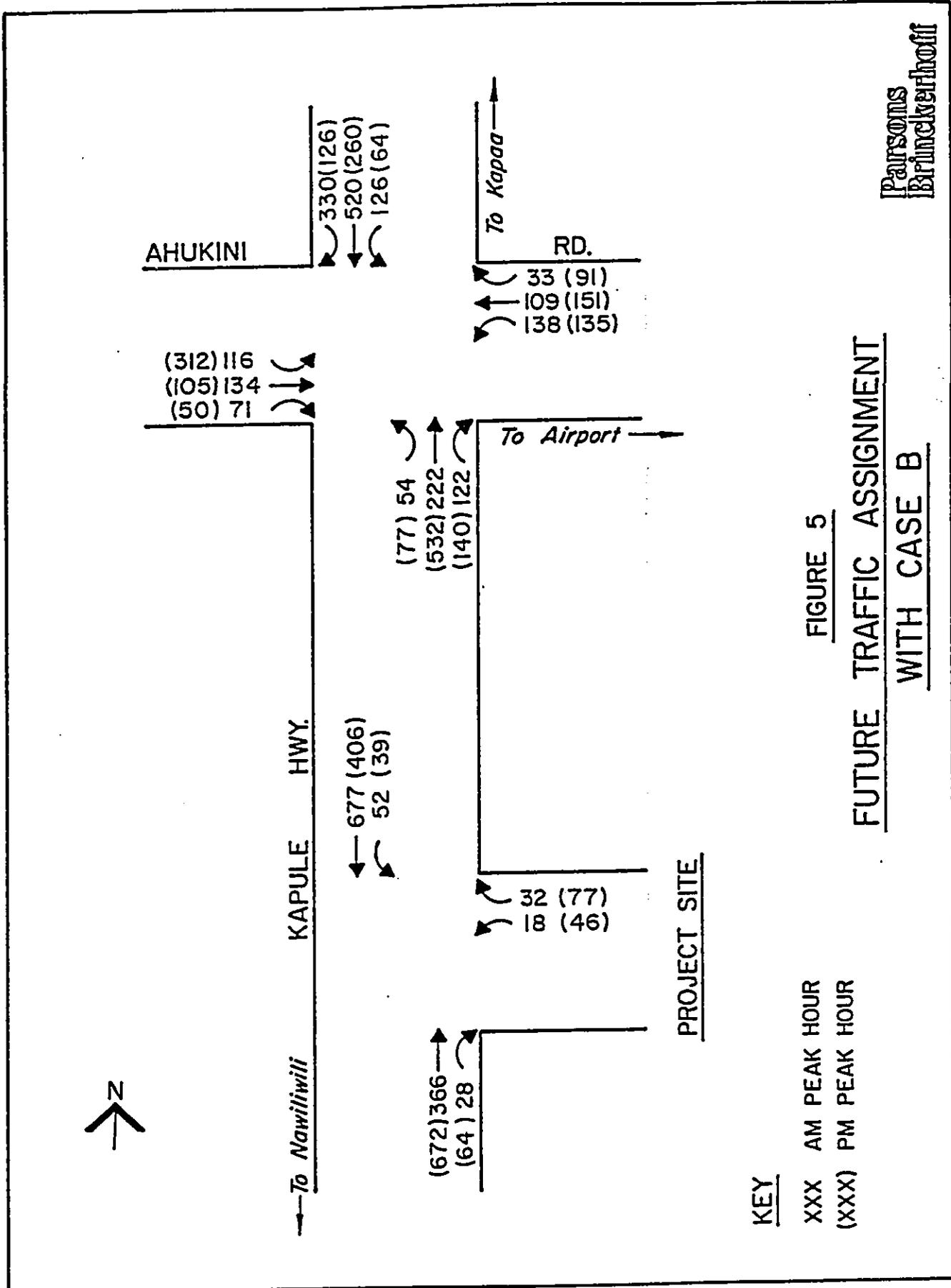


Table 2

KAPULE HIGHWAY AND PROJECT ACCESS ROAD  
 UNSIGNALIZED INTERSECTION  
 LEVEL OF SERVICE RESULTS

	<u>Case A</u>		<u>Case B</u>	
	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>
Kapule Highway				
Left turn movement	A	A	A	A
Project Access Road				
Shared lane	C	D	D	E
Separate lanes				
Left turn movement	D	D	E	E
Right turn movement	A	B	A	C

## CONCLUSIONS AND RECOMMENDATIONS

Traffic volumes on Kapule Highway would increase without or with the project; however, the project impacts at the signalized intersection of Kapule Highway and Ahukini Road would not be significant. No improvements would be needed at the intersection to accommodate the expected increases.

At the new T-intersection of Kapule Highway with the project access road, an unsignalized intersection would have adequate capacity to serve the expected project traffic volumes with or without the inclusion of customer services at the post office. A left turn storage lane on Kapule Highway should be installed to minimize delays to through traffic in the Nawiliwili direction. In addition, the provision of separate left and right turn lanes on the project access road approach would alleviate expected delays for the project traffic exiting the site.

#### REFERENCES

1. Transportation Research Board, National Research Council, Highway Capacity Manual, Special Report 209, Washington, D.C., 1985.
2. Lihue Traffic Circulation Study, Lihue, Kauai, Hawaii, prepared for the State of Hawaii, Department of Transportation, Highways Division, prepared by Austin Tsutsumi & Associates, Inc., April 1987.
3. Harmelink, M.D., "Volume Warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersections", Highway Research Board, National Research Council, Highway Research Record, Number 211, Washington, D.C., 1967.
4. U.S. Department of Transportation, Federal Highway Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 1988 Edition, Washington, D.C., 1988.

## APPENDIX

The 1985 Highway Capacity Manual defines Levels of Service as qualitative measures which describe traffic operational conditions considering speed, travel time, freedom to maneuver, traffic interruptions and delays, comfort and convenience, safety. Six levels service, from 'A' (best) to 'F' (worst) are defined.

**Level of Service A** represents free flow. Individual users are virtually unaffected by the presence of others. For unsignalized intersections, little or no delay is experienced. At signalized intersections, average delays are less than 5.0 seconds per vehicle; progression is extremely favorable with short cycle lengths and most vehicles do not stop at all.

**Level of Service B** represents stable flow where the presence of other users in traffic becomes noticeable. Short traffic delays occur at unsignalized intersections. Delays at signalized intersections range from 5.1 to 15.0 seconds per vehicle with generally good progression.

**Level of Service C** describes stable flow with greater constraints on maneuvering. Delays at unsignalized intersections are described as "average". Delays at signalized intersections range from 15.1 to 25.0 seconds per vehicle; fair progression occurs and cycle lengths may become longer.

**Level of Service D** represents high density, stable flow. Significant restrictions in speed and maneuverability begin to occur. Delays at unsignalized intersections are long as acceptable gaps in the main traffic stream become infrequent. At signalized intersections, delays range from 25.1 to 40.0 seconds per vehicle and the influence of congestion becomes more noticeable; many vehicles must stop at the signal and the proportion of vehicles not stopping declines.

**Level of Service E** represents capacity on near-capacity conditions. Speeds are low and flow is considered unstable. Very long delays occur at unsignalized intersections. Delays at signalized intersections range from 40.1 to 60.0 seconds per vehicle, which is considered to be the limit of acceptable delay.

Level of Service F describes a condition in which traffic demands exceed capacity. Forced flow, with extreme delays and long queues may cause severe congestion. At unsignalized intersections, queuing may affect other movements, Delays at signalized intersections exceed 60.0 seconds and poor progression and long cycle lengths occur; this condition is unacceptable to most drivers.

APPENDIX B  
AGENCY COMMENTS



**United States  
Postal Service**  
The Pride of the Pacific-Honolulu Division

January 22, 1991

Calvin D. S. Kim  
1017 Palm Drive  
Honolulu, HI 96814-1928

Re: Service Road for USPS - Lihue Airport, Lihue, Kauai

Dear Mr. Kim:

In response to your request for comments on the access road, we have forwarded the project description to Kimbal Thompson, Architect and Kennedy Jenks, Civil Engineers for their comments. We have requested they comment directly to your office.

Thank you for allowing us the opportunity to review the proposed project.

Sincerely,

Tyrus Ishii  
Architect/Engineer  
(2387A)

cc: Brewster Fong

JOHN WAINEE  
GOVERNOR



STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
465 SOUTH KING STREET, ROOM 104  
HONOLULU, HAWAII 96813

Dr. Brian S. Anderson  
Acting Director

TELEPHONE NO.  
548-6915

RECEIVED  
1/27/91

January 24, 1991

Calvin Kim & Associates, Inc.  
Civil Engineers  
1017 Palm Drive  
Honolulu, Hawaii 96814

Attn: Calvin D.S. Kim, President

Dear Mr. Kim:

SUBJECT: Service Road for U.S. Post Office  
Lihue Airport, Lihue, Kauai  
State Project No. AK 1045-16

Thank you for providing the opportunity to review and comment on the preparation of the Environmental Assessment for the above subject. We do not have any comments to offer on the subject at this time.

Sincerely,

*Brian J. J. Choy*

BRIAN J. J. CHOY  
Assistant Acting Director, OEQC



DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM

KAMAMALU BUILDING, 250 SOUTH KING ST., HONOLULU, HAWAII  
MAILING ADDRESS: P.O. BOX 2359, HONOLULU, HAWAII 96804 FAX: (808) 548-1746

JOHN WAIHEE  
GOVERNOR  
ROGER A. ULVELING  
DIRECTOR  
BARBARA KIM STANTON  
DEPUTY DIRECTOR  
LESLIE S. MATSUBARA  
DEPUTY DIRECTOR

RECEIVED  
1/29/91

January 25, 1991

Mr. Calvin D.S. Kim  
President  
Calvin Kim & Associates, Inc.  
1017 Palm Drive  
Honolulu, Hawaii 96814

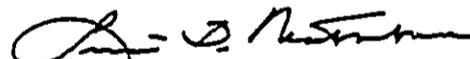
Dear Mr. Kim:

RE: Service Road for U.S. Post Office  
Lihue Airport, Lihue, Kauai  
State Project No. AK 1045-16

We wish to inform you that we have no comments to offer  
at this time on the subject.

Thank you for the opportunity to review the information  
sent to us.

Sincerely,

  
Leslie S. Matsubara  
Deputy Director

JOHN WAIHEE  
GOVERNOR OF HAWAII



JOHN C. LEWIN, M.D.  
DIRECTOR OF HEALTH

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

February 14, 1991

In reply, please refer to:  
EPHSD

91-1-033

Calvin D.S. Kim, President  
Calvin Kim & Associates, Inc.  
Civil Engineers  
1017 Palm Drive  
Honolulu, Hawaii 96814

Dear Mr. Kim

**SUBJECT:** Environmental Assessment Preparation  
Service Road for U.S. Post Office  
Lihue Airport, Lihue, Kauai  
State Project No. AK 1045-16

We have reviewed the subject project description and offer the following concerns for your consideration:

1. Effective soil erosion and dust control measures shall be implemented by the applicant during all phases of development.
2. The disposal of grubbed material shall be at a solid waste disposal facility permitted by the Department of Health.
3. Open burning is prohibited, except in accordance with the applicable requirements of Chapter 60, Air Pollution Control, Title 11, Administrative Rules, State of Hawaii.
4. Due to the general nature of the proposed project, we reserve the right to impose further environmental health restrictions when more detailed information is submitted.

If you should have any questions, please call Clyde Takekuma, Chief Sanitarian of Kauai District Health Office at 241-3323.

Very truly yours,

A handwritten signature in cursive script, appearing to read "John C. Lewin".

JOHN C. LEWIN, M.D.  
Director of Health

JOANN A. YUKIMURA  
MAYOR



COUNTY OF KAUAI  
FIRE DEPARTMENT  
4223 RICE STREET  
LIHUE, KAUAI, HAWAII 96766

ALEJANDRO LOMOSAD  
~~KOIKIHALEI HAKAHOLOA~~  
FIRE CHIEF

Mailing Address:  
4444 Rice St., Rm. 230  
Lihue, HI 96766

RECEIVED  
2/1/91

January 25, 1991

Calvin Kim & Associates, Inc.  
Civil Engineers  
1017 Palm Drive  
Honolulu, Hawaii 96814

RE: State Project No. AK 1045-16  
Service Road for US Post Office  
Lihue Airport Complex  
Lihue, Kauai, Hawaii

Gentlemen:

The Fire Department has no objections or comments for the proposed project. Fire protection concerns will be addressed when the building phase comes up for review.

Sincerely,

A handwritten signature in cursive script, appearing to read "Alejandro Lomosad".

Alejandro Lomosad  
Fire Chief

AL:mk

JOANN A. YUKIMURA  
MAYOR



COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4280 RICE STREET  
LIHUE, KAUAI, HAWAII 96766

PETER A. NAKAMURA  
PLANNING DIRECTOR

ROLAND D. SAGUM, III  
DEPUTY PLANNING DIRECTOR

TELEPHONE (808) 245-3919

RECEIVED  
7/2/91

February 4, 1991

Mr. Calvin D. S. Kim  
Calvin Kim & Associates, Inc.  
1017 Palm Drive  
Honolulu, Hawaii 96814

Subject: Service Road for U. S. Post Office at Lihue Airport  
State Project No. AK 1045-16

The following information and comments are provided in response to your letter of January 17, 1991:

1. Construction of the proposed service road was recognized during the review of the subdivision of the 5.5-acre site that was conveyed from the State to the U. S. Postal Service. In the approval of the subdivision application (S-88-71), the State and County entered into an agreement that requires the service road to be extended and connected to the terminal loop road. As specified on page 3 (paragraph #5) of the enclosed agreement, this action must occur when Kaana Road is further extended to intersect with Kapule Highway and serve as a major collector road for future urban use development proposed by Amfac/JMB Hawaii across the postal service facilities. The Kaana Road intersection, as we have recommended to Amfac/JMB Hawaii, will be designed to intersect the post office service road.
2. Although not specified in the agreement, extension of the Lot 9 access road to the terminal loop road from its intersection with the entrance (Road "B") to the postal service lot will be limited to a one-way entrance to the airport loop road.

Mr. Calvin D. S. Kim  
Page 2  
February 4, 1991

3. Based on the foregoing, the future connection or road reserve of Lot 9 to the terminal loop road should be recognized in the project description and perhaps in the traffic impact study, since it will serve as an alternative entrance to the airport terminal. The final alignment and construction plans of the postal service road should also ensure that adequate sight distance for ingressing traffic on the terminal loop road will be available in the future.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Planner Bryan Mamaclay of my staff.

  
PETER A. NAKAMURA  
Planning Director

○  
Enclosure

JOANN A. YUKIMURA  
MAYOR



AN EQUAL OPPORTUNITY EMPLOYER  
COUNTY OF KAUAI  
DEPARTMENT OF PUBLIC WORKS  
3021 UMI STREET  
LIHUE, KAUAI, HAWAII 96766

STEVEN RYAN OLIVER  
COUNTY ENGINEER  
TELEPHONE 245-3318

ARNOLD W.F. LEONG  
DEP. COUNTY ENGINEER  
TELEPHONE 245-3602

PW 1.165

February 1, 1991

Mr. Calvin Kim, President  
Calvin Kim & Associates, Inc.  
1017 Palm Drive  
Honolulu, Hawaii 96814

Dear Mr. Kim:

SUBJECT: SERVICE ROAD FOR U.S. POST OFFICE  
LIHUE AIRPORT, LIHUE, KAUAI

Reference is made to your letter dated January 17, 1991 with an enclosed report for the captioned project. We may like to offer the following comments.

We wish to point out that we do not have jurisdiction on Kapule Highway or Ahukini Road and cannot prohibit the proposed access. Consequently, our comments should be taken as suggestions.

We believe that access to Kapule Highway should be prohibited if practicable. The low volume left turn movement from the Post Office driveway into Kapule Highway will be traffic problem which could only be resolved by traffic signalization. We do not feel that main road traffic on Kapule Highway should be stopped for a low volume driveway traffic. If not practical, we believe that the Post Office access roadway should be also linked to the interior airport roadways to provide an alternate route for the post office traffic. The airport roadways direct traffic to the Kapule Highway/Ahukini Road intersection which will handle the project's traffic with little or no decrease in traffic operation conditions.

Mr. Calvin Kim  
February 1, 1991  
Page (2)

Thank you for the opportunity to offer our comments.

Very truly yours,



STEVE OLIVER  
County Engineer

KK/cu

cc: Donald Nagamine  
State, Highway