

JOHN WAIHEE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
HAWAII HOUSING AUTHORITY
P. O. BOX 17907
HONOLULU, HAWAII 96817
June 8, 1993

RECEIVED
MITSUO SHITO
EXECUTIVE DIRECTOR

'93 JUN -9 12 15
LEONARD PARESA, JR.
DEPUTY EXECUTIVE DIRECTOR

OFFICE OF ENVIRONMENTAL QUALITY CONTROL
IN REPLY REFER TO:

FAX: (808) 848-3313

MEMORANDUM

TO: Brian J.J. Choy, Director
Office of Environmental Quality Control

FROM: Mitsuo Shito, Executive Director

SUBJECT: FINAL ENVIRONMENTAL ASSESSMENT AND NEGATIVE
DECLARATION - HONOKAA PUBLIC HOUSING PROJECT

Attached for your appropriate action are the following:

1. One copy of the Document for Publication in the OEQC Bulletin.
2. Four copies of the Final Environmental Assessment and Negative Declaration.
3. One 3 1/2" computer disk with the project description.

If there are any questions, please have your staff call
Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

A handwritten signature in cursive script, appearing to read "Mitsuo Shito".

Executive Director

Attachments

1993-05-23-HI-PEA-Honokaa Public Housing Project

JUN 23 1993

FINAL ENVIRONMENTAL ASSESSMENT
AND NEGATIVE DECLARATION
HONOKAA PUBLIC HOUSING PROJECT

June 8, 1993

- A. PROPOSING AGENCY: Hawaii Housing Authority
Department of Human Services
- B. APPROVING AGENCY: Hawaii Housing Authority
Department of Human Services
- C. AGENCIES CONSULTED: State of Hawaii
Department of Accounting and General Services
Department of Health
Department of Land and Natural Resources
Department of Transportation
University of Hawaii-Environmental Center

County of Hawaii
Fire Department
Office of Housing and Community Development
Parks and Recreation Department
Planning Department
Police Department
Public Works Department
Water Supply Department

Private
The Gas Company
Hawaii Electric Light Company
GTE Hawaiian Telephone

D. PURPOSE:

The Hawaii Housing Authority (HHA) has prepared this final environmental assessment and negative declaration for the purpose of evaluating the suitability of this parcel of raw land prior to acquisition from a private landowner. According to Chapter 343-5(a)(1), Hawaii Revised Statutes, an environmental assessment is not required for the acquisition of raw land. However, the HHA proposes to acquire this land for the eventual construction of low income housing units, and wishes to determine the feasibility and potential impact of this proposed action.

E. TECHNICAL:

The Honokaa Public Housing Project proposes to construct low income public housing units on approximately fifteen and seven tenths (15.7) acres of overgrown sugar cane land mauka of the town of Honokaa, Island of Hawaii. The project is bounded by Honokaa Hospital to the north, a new subdivision being developed by the seller to the south, Plumeria Street to the east, and Lehua Street to the west (TMK 3rd Division 4-05-10: portion of 121 (Exhibit 1)). Current plans call for the construction of approximately 75 elderly and/or family rental units, comprised of a mix of one, two, and three bedrooms units in a multi-family configuration. This proposal is dependent on available funding and housing demand.

This parcel is currently zoned RS-10. The proposing agency may proceed with rezoning and redesignation of this parcel for higher density family rental uses. The project is projected to utilize either a septic tank system with a leaching field on the existing property or a hookup with a sewer line currently under construction from the adjoining Honokaa Hospital. Water service may be provided by a new well being drilled by the Department of Land and Natural Resources. Access is available to the property from either Plumeria Street to the east or Lehua Street to the west. Drainage will follow existing surface runoff patterns. Solid wastes may be taken to the Honokaa Solid Waste Disposal Transfer Station across Plumeria Street.

F. ECONOMIC CONSIDERATIONS:

Total cost for this project has been estimated at \$9 million. Funding for this project has been requested from the U.S. Department of Housing and Urban Development and the Hawaii State Legislature. Funding for preliminary planning, land acquisition, and design has been provided by the Hawaii State Legislature (Act 296, SLH 1991).

Since the property will be owned and operated by the Hawaii Housing Authority, the impact on the tax base is expected to be minimal.

G. SOCIAL:

This project will provide new low income public housing for the people of Honokaa and the Hamakua Coast. These housing opportunities are needed, as there is a critical shortage of the existing rental housing units.

No businesses or residential units will be displaced by this action. The housing that will be developed will comply with all handicapped/disability requirements, and all adaptable units can be made accessible for handicapped occupancy if the need arises.

H. ENVIRONMENTAL:

1. Flora/Fauna

No rare, threatened, or endangered species of flora or fauna are known to exist on this site. The natural flora of this area are hilograss, kaimi clover, guava, ohia, and cultivated sugarcane. A site visit reveals that the flora on site are remnants of cultivated sugarcane. On the southwest corner of the site is a grove of ironwood trees probably planted for erosion control and windbreak purposes. In a natural drainage gully, guava and Christmas berry plants are growing. The natural fauna of this area consist of pheasants and wild pigs. A site visit reveals the fauna on site consisting of birds and common insects.

2. Topography

The Honokaa Public Housing Project is located between 1,200 to 1,440 feet above sea level. (Exhibit 2) The property slopes steeply downward toward the sea in a northerly direction.

3. Soils

The Department of Agriculture's Soil and Conservation Service, in cooperation with University of Hawaii Agriculture Extension Station has classified this soil as Kukaiiau silty clay loam. (Exhibit 3 and 4) The soil surface layer is a very dark grayish-brown silty clay loam about 10 inches thick. The substratum soil is dark grayish-brown silty clay loam about 40 inches thick underlain by basalt. Permeability is moderately rapid. Runoff is medium. Erosion hazard is moderate. The mean annual soil temperature is 67 to 69 degrees Fahrenheit.

4. Historical/Archeological Significance

Currently, the subject site is a vacant lot. Prior to its purchase from the previous owner in late 1989, the property was in cultivated sugarcane production as part of Hamakua Sugar Plantation for most of this century. No significant historical or archeological features have been determined within this parcel.

5. Climate

The mean average rainfall in the Hamakua Coast is between 70 to 100 inches per year. This occurs mostly in the fall and winter. Due to its location on the windward side of the island, this area tends to be fairly moist and lush.

I. COMMENTS FROM AGENCIES CONSULTED

In February 1992, and again in October 1992 during the draft environmental assessment phase, comments were requested from the agencies list in section C above. Comments from the various agencies and responses to these comments by the proposing agency are attached. (Exhibit 5) In response to comments received from the State Department of Transportation, a traffic study has been performed to evaluate the impact to the nearby Hawaii Belt Road. (Exhibit 6)

J. DISCUSSION OF THE ASSESSMENT PROCESS:

The following assessments are made to determine whether or not the anticipated effects constitute a "significant effect":

1. The proposed action will not cause irrevocable loss or destruction of any natural or cultural resources.
2. The proposed action will not curtail the range of beneficial uses of the environment.
3. The proposed action will not conflict with the State's long-term environmental policies.
4. The proposed action will not substantially affect the economic and social welfare of the community or State.
5. The proposed action will not involve substantial secondary impacts, such as significant population changes or effects on public facilities.
6. The proposed action will not involve a substantial degradation of environmental quality.
7. The proposed action will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat. No endangered species of flora or fauna are known to exist in the project site.
8. The proposed action will not detrimentally affect air or water quality or ambient noise levels.

9. The proposed action will not be located in any environmentally sensitive area, such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

K. SUMMARY OF MAJOR IMPACTS:

From the above assessment, no major adverse environmental impact is anticipated. However, the project will result in the following minor adverse impacts:

1. Depletion of labor and material resources for construction.
2. Some dust, noise and silting during construction.

L. ALTERNATIVES CONSIDERED:

1. Alternative Designs

Variations in number and types of units, and in land density are being considered. However, this study will be constrained by funding considerations, the desires for housing opportunities by the residents of the Honokaa Community, and available zoning and infrastructure on the site.

2. No Action

The "no action" alternative was considered but was found to be unacceptable, due to the need for low income rental units in Honokaa and the availability of funding for this project. This would also not meet HHA's mandate to provide safe, decent, and sanitary housing on this available site.

M. PROPOSED MITIGATIVE MEASURES:

The temporary dust, noise and silting which would occur during construction will be controlled by application of appropriate pollution control measures.

N. CONCLUSION AND RECOMMENDATION:

This final environmental assessment indicates that the site is vacant uncultivated land. Based on this review, no immediate environmental concern is in evidence on this site. Based on these findings, no further environmental investigation is recommended at this site.

O. FINDINGS AND REASONS SUPPORTING DETERMINATION:

The project site is free of flood, tsunami, erosion, and landslide hazards. No rare or endangered species of flora are known to exist at the site. No rare or endangered species of fauna are known to inhabit the site. There are no recorded archaeological or historical sites within the existing site.

For the reasons cited above, the proposed action will not have any significant effect in the context of Chapter 343, Hawaii Revised Statutes and Section 11-200-12 of the State Administrative Rules.

P. REFERENCES

Excerpts from the preliminary environmental site assessment for the Honokaa Knolls project prepared by Masa Fujioka & Associates were used in this document, courtesy of Pheasant Ridge Corporation.

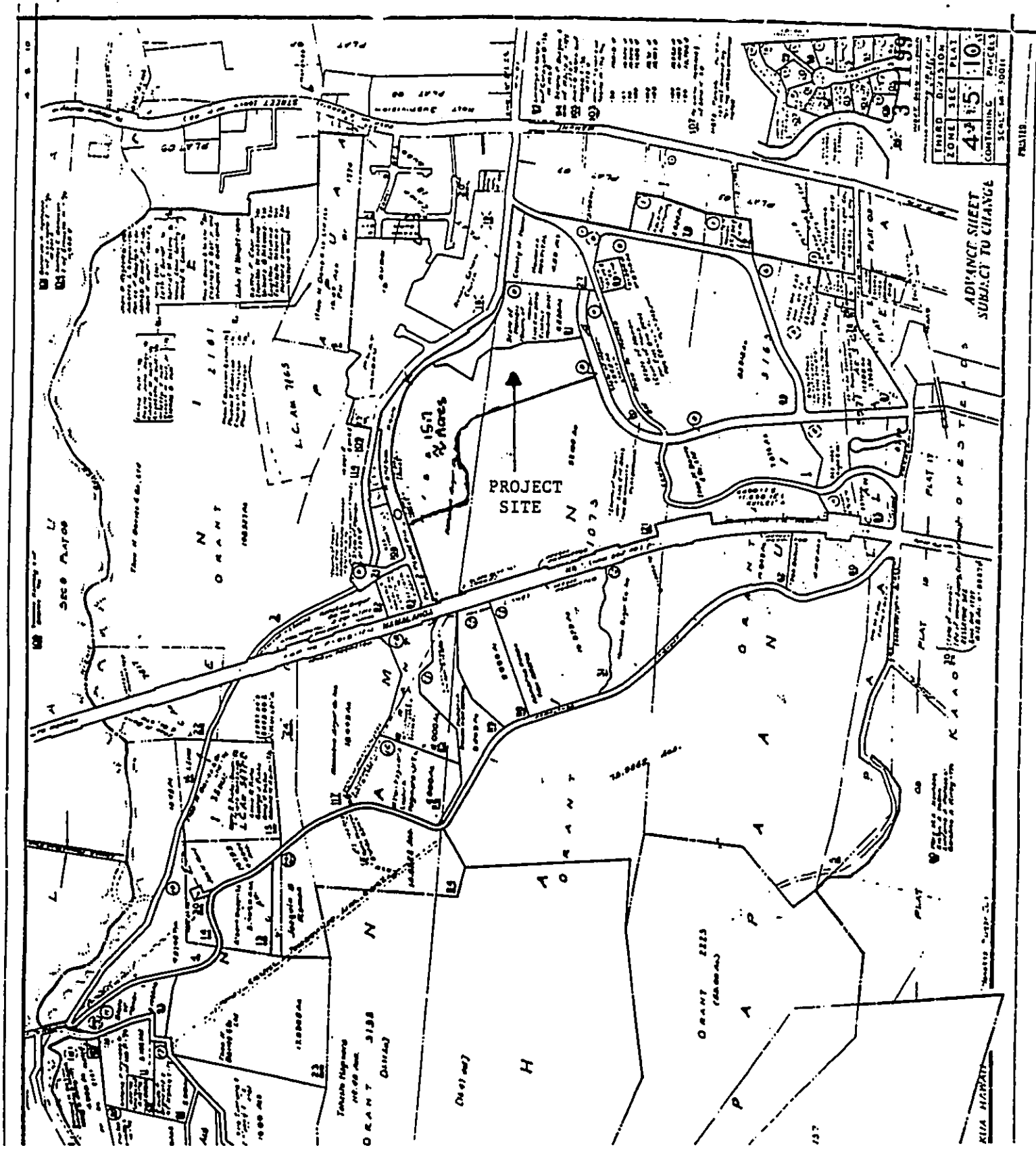
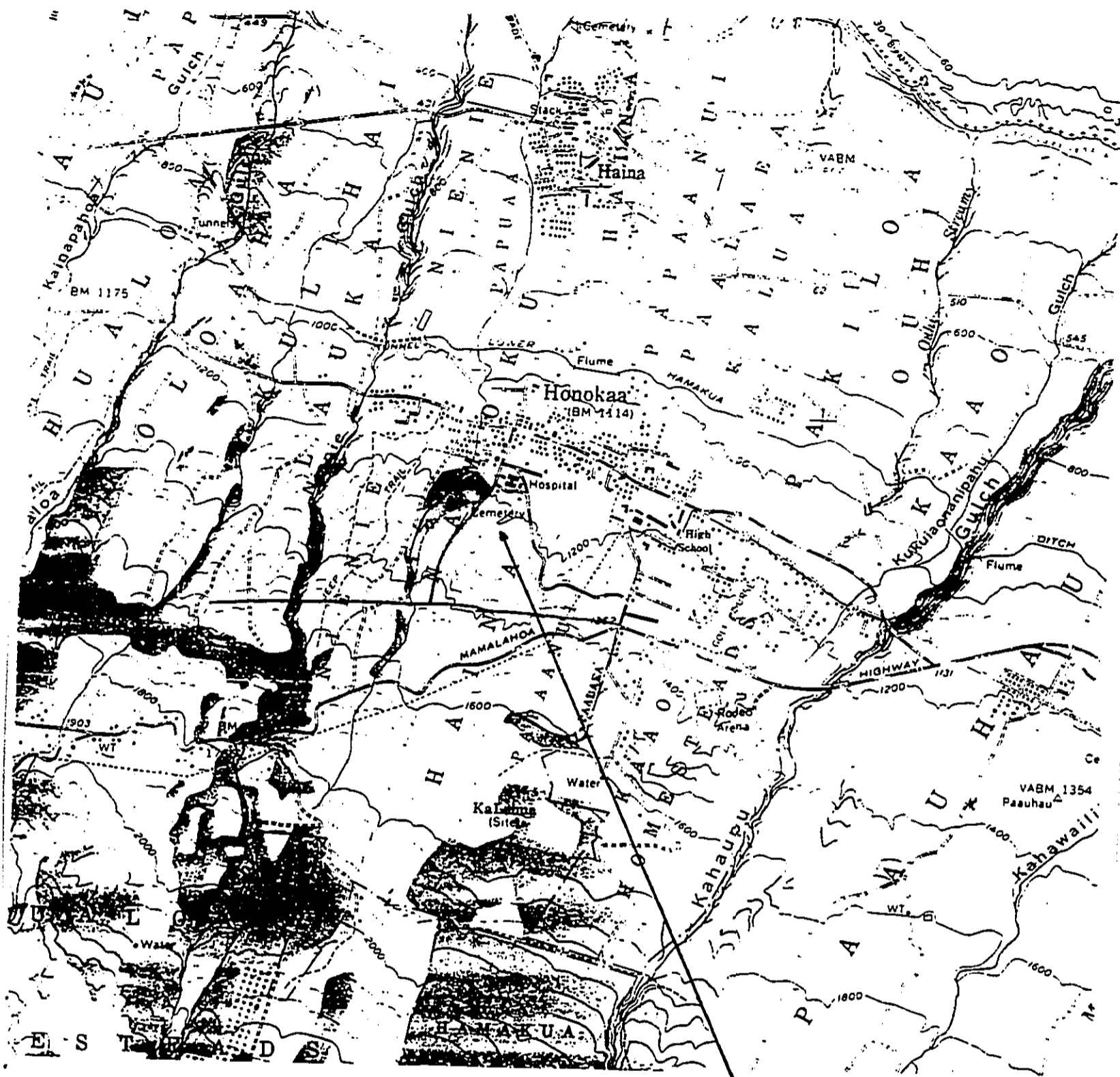
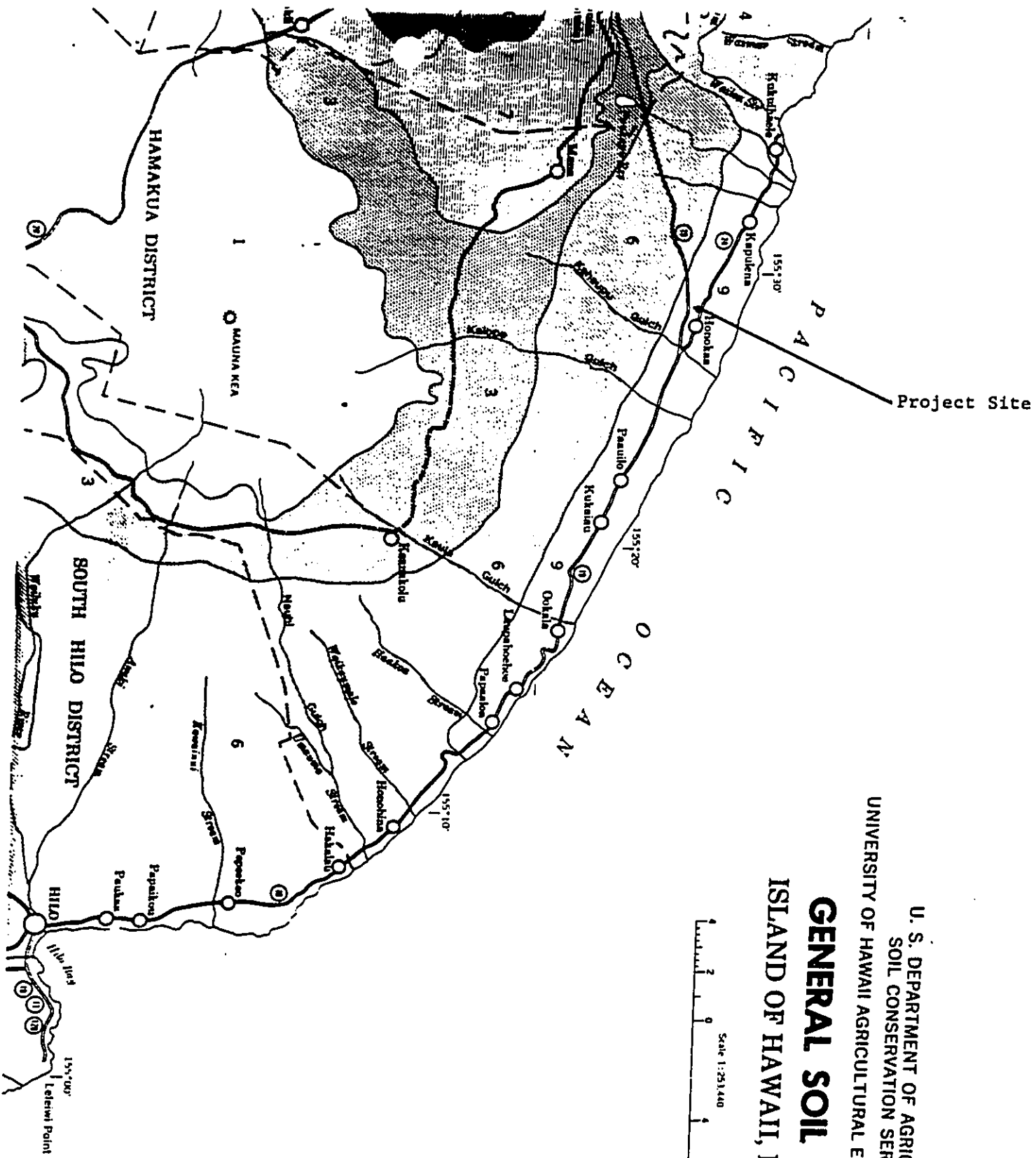


EXHIBIT I



Project Site

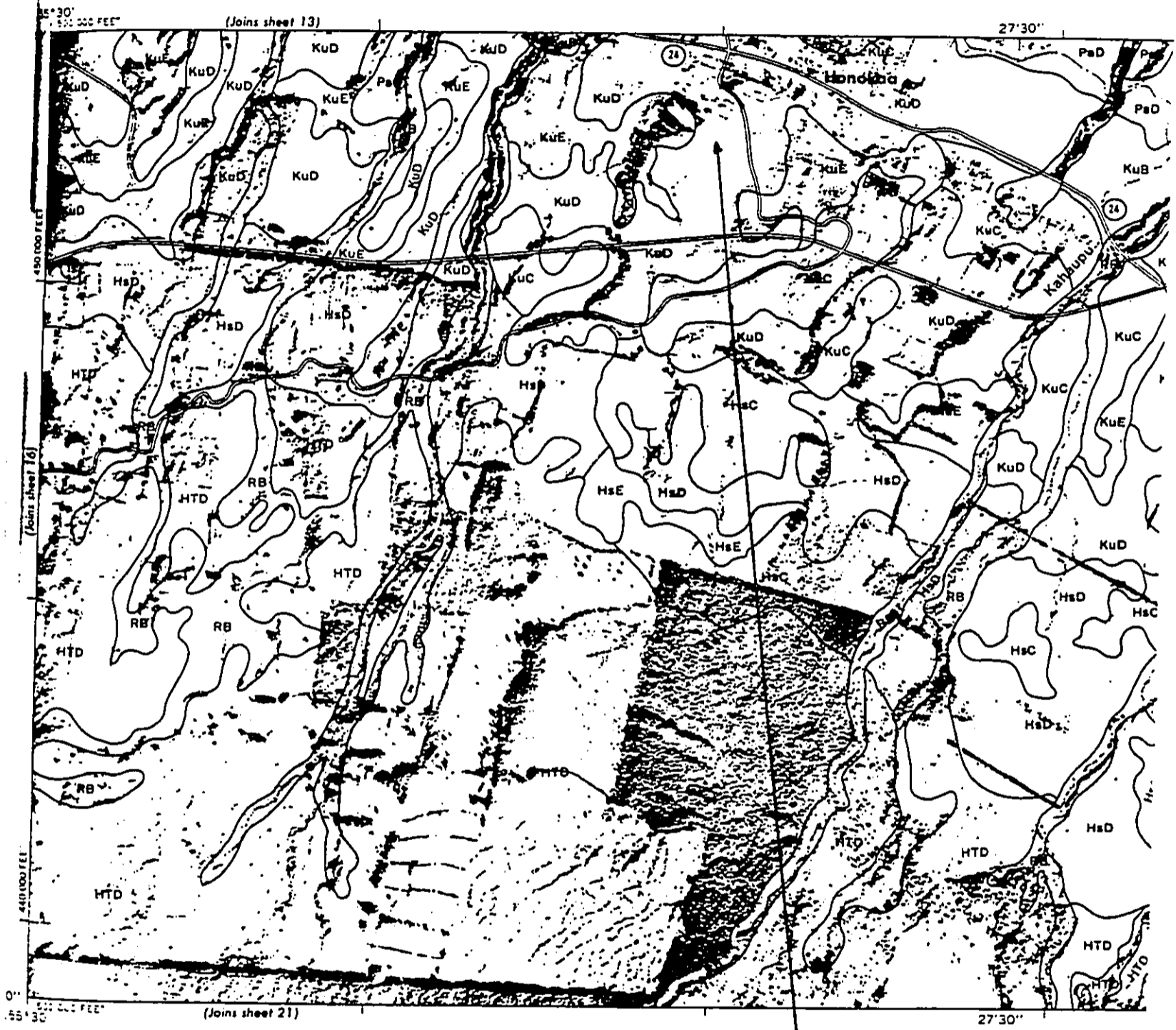
EXHIBIT 2



U. S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 UNIVERSITY OF HAWAII AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP
ISLAND OF HAWAII, HAWAII

EXHIBIT 3



Project Site

Photostereom from 1966 aerial photographs, 5 000-foot
 G.T.M. based on mean spheroidal coordinate system
 2011.0. Datum: datum

EXHIBIT 4



COMMENTS RECEIVED FROM AGENCIES

State of Hawaii	Department of Accounting and General Services Department of Health Department of Land and Natural Resources Department of Transportation University of Hawaii-Environmental Center
County of Hawaii	Fire Department Office of Housing and Community Development Planning Department Police Department Public Works Department Water Supply Department
Community	Telephone Conversation with Captain Rapoza, Honokaa Police Station, member Honokaa Business Council Telephone Conversation with Ivan Yamamoto, Honokaa Hospital, member Honokaa Development Council

JOHN WAIHEE
GOVERNOR



RUSSEL S. NAGATA
COMPTROLLER
ROBERT P. TAKUSHI
DEPUTY COMPTROLLER

FEB 1 10 56 AM '92
STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. PM-1054.2

FEB 14 1992

Mr. Mitsuo Shito
Executive Director
Hawaii Housing Authority
P. O. Box 17907
Honolulu, Hawaii 96817

Dear Mr. Shito:

Subject: Proposed Honokaa Low Income
Public Housing Project
TMK (3) 4-05-10: portion of 1 & 121

Thank you for providing us an opportunity to provide comments on your proposed project. We are presently finalizing our design for the Honokaa Health Care Facility and will be out to bid shortly. This project is adjacent to your proposed project.

We have construction drawings, a traffic study, an environmental assessment, etc. that may contain information that would be helpful for your planning purposes. We would be happy to share this information with you.

If you have any questions, please have your staff call Roy Kimura of our Project Management Branch at 586-0463.

Very truly yours, -

A handwritten signature in cursive script, appearing to read "Teuane Tominaga".

TEUANE TOMINAGA
State Public Works Engineer

RK/si

September 22, 1992

MEMORANDUM

TO: The Honorable Russel Nagata, Comptroller
Department of Accounting and General Services

ATTN: Gordon Matsuoka, State Public Works Engineer
Public Works Division

FROM: Mitsuo Shito, Executive Director
Hawaii Housing Authority

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 14, 1992, responding to our request to provide comments for the above project.

Your offer to share information regarding the Honokaa Health Care Facility, such as drawings, studies, and your environmental assessment has been invaluable in helping us plan our project. We wish to recognize Mr. Roy Kimura from your office in making this information available and answering our questions on basic infrastructure in the Honokaa area.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

MITSUO SHITO
Executive Director

WN:lt

Enclosure

JOHN WAIHEE
GOVERNOR OF HAWAII

HAWAII HOUSING
AUTHORITY

MAR 18 2 01 PM '92



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

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

92:Eng/1120

March 13, 1992

In reply, please refer to:
92-056/epo

TO: The Honorable Mitsuo Shito, Executive Director
Hawaii Housing Authority

FROM: John C. Lewin, M.D. *John C. Lewin*
Director of Health

SUBJECT: Proposed Honokaa Low Income Public Housing Project
TMK: (3)4-05-10: portion of 1 and 121

We have reviewed the subject project and have the following comments to offer:

Wastewater

The subject project is located in the noncritical wastewater disposal area, as determined by the Hawaii County Wastewater Advisory Committee. Also, a public sewer system is not available.

The proposed public housing project shows that the total number of low income rental units is approximately fifty-five (55) units. Under the current Department of Health (DOH) Administrative Rules, Chapter 11-62, "Wastewater Systems," in order to utilize individual wastewater systems (IWSs), the total development of an area cannot exceed fifty (50) single family residential lots or exceed fifty (50) dwelling units. Therefore, a treatment works must be constructed to serve this development.

The proposed new Honokaa Medical Care Facility is in the process of developing a new sewerage system for the disposal of wastewater. The DOH recommends the developers of the subject project consult with the developers of the Honokaa Medical Care Facility to work out a plan to share the Medical Care Facility's proposed sewerage system. Otherwise, we would have to recommend denial of this project at its present size.

If you should have any questions on this matter, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4290, or Mr. Harold Matsuura of our Hilo District Health Office at 933-4371.

c: Wastewater Branch
Hilo District Health Office (Harold Matsuura)

September 22, 1992

MEMORANDUM

TO: The Honorable John C. Lewin, Director
Department of Health

ATTN: Dennis Tulang, Chief
Wastewater Treatment and Construction Grants Branch

FROM: Mitsuo Shito, Executive Director
Hawaii Housing Authority

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of March 13, 1992, responding to our request to provide comments for the above project.

Your concern regarding wastewater treatment for 50 or more dwelling units is noted. We have discussed a possible sharing of sewer system with the Honokaa Health Care Facility or possibly limiting the number of units to below 50 in order to address your concerns.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

MITSUO SHITO
Executive Director

WN:lt

Enclosure

JOHN WAIHEE
GOVERNOR OF HAWAII

HAWAII HOUSING
AUTHORITY

MAR 10 10 57 AM '92



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JACK P. KEPPELER, II
DONA L. HANAIKE

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
CONSERVATION AND
ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

February 28, 1992

LOG NO.: 4630
DOC NO.: 0107x

Mr. Mitsuo Shito, Executive Director
Department of Human Services, Hawaii Housing Authority
P.O. Box 17907
Honolulu, Hawaii 96817

Dear Mr. Shito:

**SUBJECT: Chapter 6E Compliance--Proposed Honokaa Low Income Public
Housing Project, Honokaa (Hawaii Housing Authority)
Haina and Namoku, Hamakua, Island of Hawaii
TMK: 3-4-5-10: portion 001 & 121**

According to our records and available aerial maps, the subject parcels were under intensive sugar cane cultivation as late as 1975. Such intensive land use would have destroyed all surface significant historic sites in the area. Hence, a determination of "no effect" by the proposed housing project on significant historic sites in the parcels can be made.

If you should have any further questions, please contact Kanalei Shun at 587-0007.

Sincerely,

Don Hibbard

DON HIBBARD, Administrator
State Historic Preservation Division

KS:aal

c: County of Hawaii, Planning Department

September 22, 1992

MEMORANDUM

TO: The Honorable William Paty, Chairperson
Department of Land And Natural Resources

ATTN: Don Hibbard, Administrator
State Historic Preservation Division

FROM: Mitsuo Shito, Executive Director
Hawaii Housing Authority

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 28, 1992, responding to our request to provide comments for the above project.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

MITSUO SHITO
Executive Director

WN:lt

Enclosure



JOHN WAIHEE
GOVERNOR



FEB 25 3 23 11 '92

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

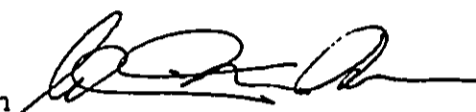
February 25, 1992

DIRECTOR
DEPUTY DIRECTORS
JOYCE T. OMINE
AL PANG
JEANNE K. SCHULTZ
CALVIN M. TSUDA

IN REPLY REFER TO:

HWY-PS
2.0841

TO: Mitsuo Shito, Executive Director
Department of Human Services
Hawaii Housing Authority

FROM: *jd* Rex D. Johnson, Director
Department of Transportation 

SUBJECT: ENVIRONMENTAL ASSESSMENT PREPARATION,
HONOKAA LOW-INCOME PUBLIC HOUSING PROJECT,
HONOKAA, HAMAKUA, HAWAII, TMK: 4-5-10: POR. 1 & 121

Thank you for your memorandum of February 4, 1992, requesting our comment on the subject project.

Please include a traffic assessment for this project in the Environmental Assessment. We reserve further comment until we can review the assessment.

September 22, 1992

MEMORANDUM

TO: The Honorable Rex D. Johnson, Director
Department of Transportation

ATTN: Tetsuo Harano, Administrator
Highways Division

FROM: Mitsuo Shito, Executive Director
Hawaii Housing Authority

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 28, 1992, responding to our request to provide comments for the above project.

In response to your concerns, we are planning to include a traffic assessment in our final environmental assessment. ✓

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

MITSUO SHITO
Executive Director

WN:lt

Enclosure

JOHN WAIHEE
GOVERNOR

HAWAIIAN
AUTHORITY



OCT 21 10 07 AM '92
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097
October 20, 1992

Handwritten signature

REX D. JOHNSON
DIRECTOR
DEPUTY DIRECTORS
JOYCE T. OMINE
AL PANG
JEANNE K. SCHULTZ
CALVIN M. TSUDA

IN REPLY REFER TO:

HWY-PS
2.4202

TO: Mitsuo Shito, Executive Director
Hawaii Housing Authority

FROM: *Rex D. Johnson*, Director
Department of Transportation *A. Johnson*

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT, PROPOSED
HONOKAA LOW INCOME PUBLIC HOUSING PROJECT,
HONOKAA, HAMAKUA, HAWAII, TMK: 4-5-10: POR. 121

Thank you for your letter of September 22, 1992, responding to our letter of February 28, 1992, and requesting our review of the subject draft environmental assessment.

We will reserve comment until we have had the opportunity to review the traffic assessment.

DHS 4309 (5/92)

Suspense

File	Info	Coord	Act	Int
1 EXECUTIVE DIRECTOR				2
2 DEP. EXECUTIVE DIRECTOR				2
ADMINISTRATIVE SVC. OFC.				
DATA PROCESSING				
PERSONNEL				
PURCHASING				
3 ENGINEERING & INSPECTION				
HEARINGS OFFICER				
HOUSING COMPLIANCE				
HOUSING MANAGEMENT				
OAHU				
NEIGHBOR ISLAND				
CENTRAL MAINTENANCE				
LEGAL				
PLANNING				
PUBLIC INFORMATION				
RESIDENT SERVICES				
HOMELESS ALOHA				
HOMELESS COORDINATOR				

FILE 92: ENG 4255

Wayne

May 20, 1993

MEMORANDUM

TO: The Honorable Rex D. Johnson, Director
Department of Transportation

FROM: Mitsuo Shito, Executive Director
Hawaii Housing Authority

SUBJECT: Draft Environmental Assessment, Proposed
Honokaa Low Income Public Housing Project,
Honokaa, Hamakua, Hawaii; TMK: 4-5-10: Por. 121

Thank you for your letter of September 22, 1992, responding to our draft environmental assessment for the above project. Please excuse the delay in responding to your letter, as we required additional time in retaining a traffic consultant for this project.

As requested, attached are two (2) advanced copies of our pre-final traffic impact analysis for the proposed project for your review and comment.

Should you have any questions, please contact Wayne Nakamoto, Project Coordinator, at 832-5920.

Original Signed

MITSUO SHITO
Executive Director

WN:lt

cc: C. Ching, Pheasant Ridge Corporation/w attachment

92. erz / 4299

HAWAII HOUSING AUTHORITY



OCT 20 11 22 AM '92

University of Hawaii at Manoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawaii 96822
Telephone: (808) 956-7361
Facsimile 956-3980

October 21, 1992
EA:00004

Mr. Wayne Nakamoto
Hawaii Housing Authority
1002 North School Street
Honolulu, Hawaii 96817

Dear Mr. Nakamoto:

Draft Environmental Assessment
Honokaa Public Housing Project
Honokaa, Hawaii

The referenced project proposes to construct low income public housing units on approximately 15.7 acres adjacent to the Honokaa Hospital. Approximately 75 elderly and/or family rental apartments, comprised of a mix of one, two, and three bedroom units in a multi-family configuration will be built dependent on available funding and housing demand. Our review of the Draft Environmental Assessment (EA) was prepared with the assistance of Peter Flachsbart, Urban and Regional Planning; Terry Hunt, Anthropology; Jon Matsuoka, School of Social Work; and Elizabeth Gordon, Environmental Center.

General comments

Pursuant to the Environmental Impact Statement (EIS) Rules (Section 11-200-9; 11-200-10; 11-200-12, H.A.R.), Environmental Assessments are intended to provide sufficient information to evaluate the significance of potential impacts. Although we concur that a negative declaration is appropriate, our reviewers have noted a number of areas in which additional information would contribute to a better basis for decision making, and we suggest that the present EA be expanded to accommodate these concerns.

Social (G)

Although intended as an affordable housing project, it is unclear whether there are any conditions of eligibility for purchase of these homes. Will these housing units be limited to the people of Hawaii or the

Mr. Wayne Nakamoto
October 21, 1992
Page 2

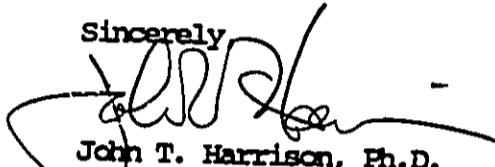
people of Honokaa and the Hamakua Coast? If not, what are the potential socio-economic impacts? For example in Puna and Kau, affordable housing was bought by people outside of Hawaii, creating conflicts with long-term residents in areas of economic development and community relations.

Historical/Archaeological Significance (H-4)

The project area is described as former sugar cane land and if all of the project area was cultivated, the potential for archaeological sites is very low. However, there remains the possibility that deeply buried archaeological deposits and human burials may be present. The EA should stipulate that appropriate mitigative measures will be taken and coordinated with the Department of Land and Natural Resources if the project is found to impact upon archaeological resources.

Thank you for the opportunity to review this EA. We hope that our comments are helpful.

Sincerely



John T. Harrison, Ph.D.
Environmental Coordinator

cc: OEQC
Roger Fujioka
Peter Flachsbart
Terry Hunt
Jon Matsuoka
Elizabeth Gordon

92:ENG/1506

November 2, 1992

Dr. John T. Harrison
Environmental Coordinator
Environmental Center
University of Hawaii at Manoa
2550 Campus Road
Honolulu, Hawaii 96822

Dear Dr. Harrison:

Subject: Draft Environmental Assessment
Honokaa Public Housing Project, Honokaa, Hawaii

Thank you for your letter of October 21, 1992, expressing your concerns for the above project.

Regarding your socio-economic concern, please be informed that the Hawaii Housing Authority constructs rental units only. Affordable housing built for the Hawaii Housing Authority is owned and operated by the State of Hawaii. Selection of tenants are made via an application process. As a governmental entity, we are prohibited from discriminating by origin or residency. However, it is our practice to encourage rental housing opportunities to people residing within the area of the project.

As stated in your letter, the potential for significant historical or archaeological sites is very low. However, it is our practice to instruct our consultants and contractors to work closely with the Department of Land and Natural Resources, Historic Preservation Division in assuring that mitigative measures are taken should historic and/or archaeological sites are uncovered. Your concern is noted, and will be included in the final environmental assessment.

Dr. John T. Harrison
November 2, 1992
Page 2

We appreciate your careful review of the draft environmental assessment and the valuable comments made to improve the final environmental assessment. Should you have any questions, please call Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

Sincerely,

Mitsuo Shito
Original Signed

MITSUO SHITO
Executive Director

WN:lt



Fire Department

County of Hawaii • 466 King Street • Hilo, Hawaii 96720-2983 • (808) 961-8297

February 14, 1992


Mr. Mitsuo Shito
Executive Director
Hawaii Housing Authority
Department of Human Services
P. O. Box 17907
Honolulu, Hawaii 96817

Dear Mr. Shito:

Subject: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: Portion of 1 & 121

We have no comments or concerns regarding the above-referenced project as it will fall under the Subdivision Code.

Sincerely,


DANIEL AYALA
Fire Chief

DA/mo

DHS 4309 (10/88)

Suspense

Re	Info	Coord	Act	Inv
1	EXECUTIVE DIRECTOR			
3	DEP. EXECUTIVE DIRECTOR			
	PUBLIC INFORMATION			
	LEGAL			
	HEARINGS OFFICER			
	PLANNING			
	HOUSING COMPLIANCE			
	ADMINISTRATIVE SVC. OFC.			
	PERSONNEL			
	PURCHASING			
2	ENGINEERING & INSPECTION			
	TENANT SERVICES			
	HOUSING MANAGEMENT			
	OAHU			
	NEIGHBOR ISLAND			
	CENTRAL MAINTENANCE			
FILE	92-ENG/662			

subject

92:ENG\1300

September 22, 1992

Mr. Daniel Ayala
Fire Chief
Fire Department
County of Hawaii
466 Kinoole Street
Hilo, Hawaii 96720

Dear Chief Ayala:

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 14, 1992, responding to our request to provide comments for the above project.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

Sincerely,

Mitsuo Shito
Signed

MITSUO SHITO
Executive Director

WN:csg

Enclosure

AWAY/CHLO2



HAWAII HOUSING
AUTHORITY
Fire Department

County of Hawaii • 466 Kinoole Street, Honolulu, Hawaii 96720-2983 • (808) 961-8297 •

OCT 3 11 02 AM '92

October 1, 1992

Mr. Mitsuo Shito
Executive Director
Hawaii Housing Authority
Department of Human Services
P. O. Box 17907
Honolulu, Hawaii 96817

Dear Mr. Shito:

Subject: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: Portion of 121

In response to your request of September 22, 1992, we have no additional comments regarding the proposed Honokaa Low Income Public Housing Project at this time.

Sincerely,


DANIEL AVALA
Fire Chief

DA/mo

DHS 4309 (5/92)

Suspense _____

Rte		Info	Coord	Act	File
1	EXECUTIVE DIRECTOR				✓
3	DEP. EXECUTIVE DIRECTOR	✓			
	ADMINISTRATIVE SVC. OFC.				
	DATA PROCESSING				
	PERSONNEL				
	PURCHASING				
2	ENGINEERING & INSPECTION		✓		
	HEARINGS OFFICER				
	HOUSING COMPLIANCE				
	HOUSING MANAGEMENT				
	OAHU				
	NEIGHBOR ISLAND				
	CENTRAL MAINTENANCE				
	LEGAL				
	PLANNING				
	PUBLIC INFORMATION				
	RESIDENT SERVICES				
	HOMELESS ALOHA				
	HOMELESS COORDINATOR				
FILE	92-ENH 4064				



Office of Housing
and Community Development

County of Hawaii • 50 Walluku Drive • Hilo, Hawaii 96720 • (808) 961-8379 • Fax (808) 935-4725

Brian T. Nishimura
Housing Administrator

FEB 20 1 25 PM '92

A.J. Gray / 6824

February 14, 1992

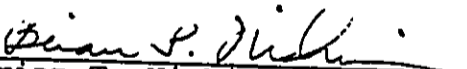
Mr. Mitsuo Shito
Executive Director
Department of Human Services
Hawaii Housing Authority
P.O. Box 17907
Honolulu, Hawaii 96817

SUBJECT: Proposed Honokaa Low-Income Public Housing Project
TMK: (3) 4-05-10: Portion of 1 & 121

Thank you for your letter dated February 4, 1992, regarding your proposed public housing project in Honokaa. The Hawaii County Office of Housing and Community Development (OHCD) has no objections to your proposed project. The proposed project seems to fit in with the others proposed for the Honokaa area.

However, other proposed projects in the area have noted some concerns in obtaining water commitments. Therefore, we are recommending that you contact the County Department of Water Supply for their review and comments.

Please do not hesitate to call me if we can assist you with this project.


Brian T. Nishimura
Administrator



EQUAL HOUSING OPPORTUNITY

Subject

92:ENG\1296

September 22, 1992

Mr. Brian T. Nishimura
Administrator
Office of Housing and Community Development
County of Hawaii
50 Wailuku Drive
Hilo, Hawaii 96720

Dear Mr. Nishimura:

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 14, 1992, responding to our request to provide comments for the above project.

In response to your concerns regarding a water commitment for the above site, the Hawaii Housing Authority has contacted both the Department of Water Supply and the Department of Land and Natural Resources, Division of Water and Land Development regarding this matter.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

Sincerely,

Mitsuo Shito
Executive Director

MITSUO SHITO
Executive Director

WN:csg

Enclosure

A10014X/CHCD2



HAWAII HOUSING
AUTHORITY

Planning Department

25 Aupuni Street, Room 109 • Hilo, Hawaii 96720 • (808) 961-8288

Lorraine R. Inouye
Mayor

Norman K. Hayashi
Director

Tad Nagasako
Deputy Director

October 22, 1992

Mr. Mitsuo Shito
Executive Director
Hawaii Housing Authority
P. O. Box 17907
Honolulu, HI 96817

Dear Mr. Shito:

Draft Environmental Assessment (EA)
Proposed Honokaa Public Housing Project
TMK: 4-5-10:Portion of 121

Thank you for the opportunity to review the above-referenced draft EA for the proposed Honokaa Low Income Public Housing project. We have no comments to offer on the project.

Sincerely,

NORMAN K. HAYASHI
Planning Director

AK:ska
9637J (1)

OHS 4308 (5/92)

Suspense

R#		Info	Coord	Act	Int
1	EXECUTIVE DIRECTOR				
2	DEP. EXECUTIVE DIRECTOR				2
	ADMINISTRATIVE SVC. OFC.				
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	PERSONNEL				
	PURCHASING		1		
3	ENGINEERING & INSPECTION				
	HEARINGS OFFICER				
	HOUSING COMPLIANCE				
	HOUSING MANAGEMENT				
	DAHU				
	NEIGHBOR ISLAND				
	CENTRAL MAINTENANCE				
	LEGAL				
	PLANNING				
	PUBLIC INFORMATION				
	RESIDENT SERVICES				
	HOMELESS ALOHA				
	HOMELESS COORDINATOR				

FILE 92-ENG/4297



Police Department

349 Kapiolani Street • Hilo, Hawaii 96720-3998 • (808) 961-2244 • Fax (808) 961-0001

February 20, 1992

Mr. Mitsuo Shito
Executive Director
State Department of Human Services
Hawaii Housing Authority
P. O. Box 17907
Honolulu, Hawaii 96817

Dear Mr. Shito:

SUBJECT: PROPOSED HONOKAA LOW INCOME PUBLIC HOUSING PROJECT,
TMK (3) 4-05-10: PORTION OF 1 & 121

The above proposed project has been reviewed and we foresee no adverse effect should it be granted.

Sincerely,


VICTOR V. VIERRA
CHIEF OF POLICE

JD:sk

cc: Hamakua Police

DHS 4309 (10/88)

Suspense

Ref	MR	LOG	Act
1	EXECUTIVE DIRECTOR		
2	DEF. EXECUTIVE DIRECTOR		
	PUBLIC INFORMATION		
	LEGAL		
	HEARINGS OFFICER		
	PLANNING		
	HOUSING COMPLIANCE		
	ADMINISTRATIVE SVC OFC.		
	PERSONNEL		
	PURCHASING		
3	ENGINEERING & INSPECTION		
	TENANT SERVICES		
	HOUSING MANAGEMENT		
	DAHU		
	NEIGHBOR ISLAND		
	CENTRAL MAINTENANCE		
FILE	92.ENG 163		

subject

92:ENG\1302

September 22, 1992

Mr. Victor V. Vierra
Chief of Police
Police Department
County of Hawaii
349 Kapiolani Street
Hilo, Hawaii 96720-3998

Dear Chief Vierra:

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 20, 1992, responding to our request to provide comments for the above project.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

Sincerely,

Mitsuo Shito

MITSUO SHITO
Executive Director

WN:csg

Enclosure

AU:WV:1CH02

subject

92:ENG\1302

September 22, 1992

Mr. Victor V. Vierra
Chief of Police
Police Department
County of Hawaii
349 Kapiolani Street
Hilo, Hawaii 96720-3998

Dear Chief Vierra:

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of February 20, 1992, responding to our request to provide comments for the above project.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

Sincerely,

MITSUO SHITO

MITSUO SHITO
Executive Director

WN:csg

Enclosure

AU:WAYNE\CHAD2



HAWAII HOUSING AUTHORITY
92-ENG-154
Suspense 4/14/92
MAR 31

Department of Public Works

County of Hawaii • 25 Aupuni Street, Room 202 • Honolulu, Hawaii 96720 • (808) 961-8321 • Fax (808) 969-7138

Bruce C. McClure
Chief Engineer

Laurence E. Capellas
Deputy Chief Engineer

March 27, 1992

MR MITSUO SHITO EXECUTIVE DIRECTOR
HAWAII HOUSING AUTHORITY
P O BOX 17907
HONOLULU HI 96817

SUBJECT: PROPOSED HONOKAA LOW INCOME PUBLIC HOUSING PROJECT
TMK: 4-5-10: por. 1 & 121
Hamakua, HI

This is in response to your (92:ENG/154) letter to us. We have the following comments:

TRAFFIC

1. The EIS should address:
 - a. The access to the site.
 - b. The traffic impact of the project upon the area.
 - c. Any mitigating measures that the developer will construct or fund.
2. Other concerns are:
 - a. That safe sight-distance be maintained for the ingress and egress to the site.
 - b. That adequate street lighting be installed at the entrance/exit of the project.

SOLID WASTE

In light of recent state legislation which requires the development of a county integrated waste management plan, we believe that the solid waste management plan should be developed for this project. The plan should address as a minimum the following:

- a. Analysis of anticipated solid waste volume and composition.
- b. Proposed disposal and/or transportation methods to be employed for various components of the waste stream.
- c. Impacts to existing/proposed county solid waste facilities, including financial impacts, and appropriate mitigating measures.
- d. A waste reduction component which analyzes techniques to be employed to help the County achieve a reduction goal of 25% by 1995 and 50% by 2000.

Ltr to Mitsuo Shito
Page 2
March 27, 1992

ROADWAY

Will roadway be dedicated to County?
How will these roadways contribute to the circulation system in this area?
Provide for connections to mauka property.

DRAINAGE

Prepare a drainage study.
The intersection of Mamane Street and Plumeria Road floods because of
runoff from this area.

for David Murakami
ROBERT K. YANABU, Division Chief
Engineering Division

DHM:sah

cc: SWD
TRF
BLD
ENG

April 15, 1992

Mr. Bruce C. McClure
Chief Engineer
Department of Public Works
County of Hawaii
25 Aupuni Street, Room 202
Hilo, Hawaii 96720

Attention: Robert K. Yanabu, Engineering Division

Dear Mr. McClure:

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK 4-5-10: por. 1 & 121

Thank you for your letter of March 27, 1992, providing comments to our proposed environmental assessment for the above project.

In response to your concerns, we have prepared the following responses:

Traffic: The Hawaii Housing Authority shall retain a traffic engineer to conduct a traffic study prior to filing the environmental assessment. We will instruct the traffic engineer to address concerns regarding access, traffic impact, mitigating measures, ingress and egress distances, and street lighting.

Solid Waste: During the planning and engineering part of the project, we will request that our consultants develop a solid waste management plan for the project, along with a waste reduction plan.

Roadways: During the planning and engineering part of the project, our consultants will develop the roadway and circulation system for the project. Normally roadways within our housing projects are not dedicated to the County in order to provide security, and control traffic within our project. For the same reason, we do not anticipate connecting to any roads within the mauka properties.

Mr. Bruce C. McClure
April 15, 1992
Page 2

Drainage: A drainage study will be prepared during the planning and engineering part of the project. We shall make our consultants aware of the flooding at Mamane Street and Plumeria Road.

The Hawaii Housing Authority appreciates your comments and concerns regarding this project. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 848-3281.

Sincerely,

Original Signed

MITSUO SHITO
Executive Director

WN:lt

Subject

92:ENG/1302

September 22, 1992

Mr. Bruce C. McClure
Chief Engineer
Department of Public Works
County of Hawaii
25 Aupuni Street, Room 202
Hilo, Hawaii 96720

Attention: Robert K. Yanabu, Engineering Division

Dear Mr. McClure:

SUBJECT: Proposed Honokaa Low Income Public Housing Project,
TMK (3) 4-05-10: portion of 121

Thank you for your letter of March 27, 1992, responding to our request to provide comments for the above project. Our letter of April 15, 1992 provided responses to each of your concerns.

The attached draft environmental assessment for this project will be published in the OEQC Bulletin on September 23, 1992. Should you have any additional comments and concerns regarding this project, please respond by October 23, 1992.

Your attention and expeditious action in this matter is appreciated. Should you have any questions, please contact Mr. Wayne Nakamoto, Project Coordinator, at 832-5920.

Sincerely,

Mitsuo Shito
Executive Director

MITSUO SHITO
Executive Director

WN:csg

Enclosure

Wayne Nakamoto

October 9, 1992

MEMORANDUM

To: Chief Engineer
From: Wayne Nakamoto *wn*
Re: Honokaa Public Housing Project - Conversation with
Captain Rapoza of the Honokaa Police Station

Today, at 8:00 a.m., I had a conversation with Captain Rapoza of the Honokaa Police Station. He was calling about the draft environmental assessment for the above project.

Captain Rapoza said that he was representing the Honokaa Business Council, a group of community leaders. He was concerned that HHA may not be serious or interested in the project; since it was his organization and others in the Honokaa community who convinced Pheasant Ridge Corporation to set aside 15.7 acres for affordable housing opportunities.

He also heard from the project realtor that other agencies are not interested, and the parcel will be subdivided and sold at market prices. I assured him that HHA was interested in acquiring the property, and development of the parcel would take place depending on funding availability and market demand.



Captain Rapoza mentioned that he will be sending a letter to HHA in support of housing on the 15.7 acre parcel. He also mentioned that Mr. Ivan Yamamoto, administrator of Honokaa Hospital, will be contacting the HHA Big Island Manager to convey the same message.

For your information and file.

cc: ✓ Executive Director

October 26, 1992

MEMORANDUM

To: Chief Engineer 
From: Wayne Nakamoto 
Re: Honokaa Public Housing Project - Conversation with Ivan Yamamoto of Honokaa Hospital

Today I had a conversation with Mr. Ivan Yamamoto of Honokaa Hospital. He called the seller of the above project, and was referred to me.

Speaking for DOH, Mr. Yamamoto wanted to know how serious HHA was in acquiring the 15.7 acres. He mentioned that he was thinking of requesting that the State Health Planning and Development Agency of the Department of Health acquire this property if HHA was not interested. I assured him that HHA was serious about acquisition of the property, and had received Commission approval to negotiate the acquisition of the parcel subject to certain conditions.

Mr. Yamamoto was pleased with this information, and stated that he was also part of the Honokaa Development Council, which reviews all new development proposals in the Honokaa area. I provided several details regarding the property, and informed him that development of the parcel would take place depending on funding availability and market demand.

Mr. Yamamoto mentioned that he will sending a letter to HHA in support of housing on the 15.7 acre parcel. I also mentioned to him that I was still waiting for Captain Rapoza of the Honokaa Police Station to convey the same message.

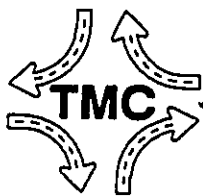
For your information and file.

cc: Executive Director

**PRE-FINAL TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED**

**HONOKAA
PUBLIC HOUSING PROJECT**

PREPARED FOR
OKAHARA & ASSOCIATES, INC.
MAY 7, 1993



PREPARED BY
THE TRAFFIC MANAGEMENT CONSULTANT
RANDALL S. OKANEKU, P. E., PRINCIPAL • 1188 BISHOP STREET, SUITE 1907 • HONOLULU, HAWAII 96813

EXHIBIT 6

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**PRE-FINAL TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED
HONOKAA PUBLIC HOUSING PROJECT**

I. Introduction

A. Purpose and Scope of Study

The purpose of this study is to identify and analyze the traffic impacts resulting from the proposed Honokaa Public Housing Project in Honokaa, Hawaii. This study also presents traffic improvements that would mitigate the traffic impacts identified in this study. This report presents the findings and recommendations of the study.

The scope of the study includes the following:

1. Description of the proposed project.
2. Description of the study area and surrounding land uses.
3. Evaluation of existing roadway and traffic conditions.
4. Estimation of future traffic without the project.
5. Development of trip generation characteristics for the proposed project.
6. Identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendation of improvements that would mitigate the traffic impacts identified in this study.

B. Project Description

The project site is identified as TMK 4-5-10: Portion of 121. Access to the site is proposed on the west side of Lehua Street, south of the Honokaa Hospital. Figure 1 shows the location map.

The proposed project would consist of up to 75 multi-family dwelling units. Full build out and occupancy is expected in 1996. Figure 2 shows the parcel map.

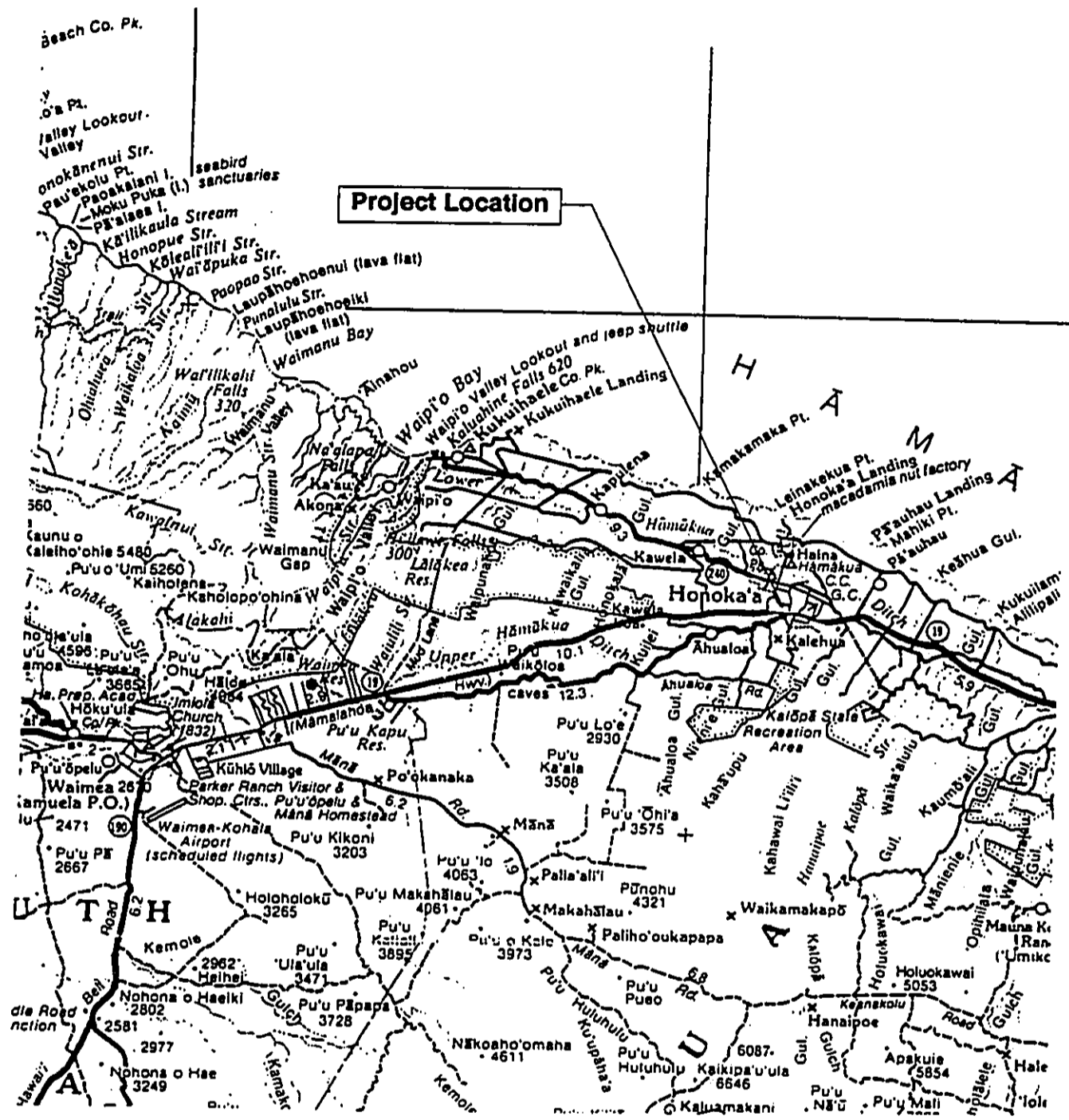


Figure 1 - Location Map

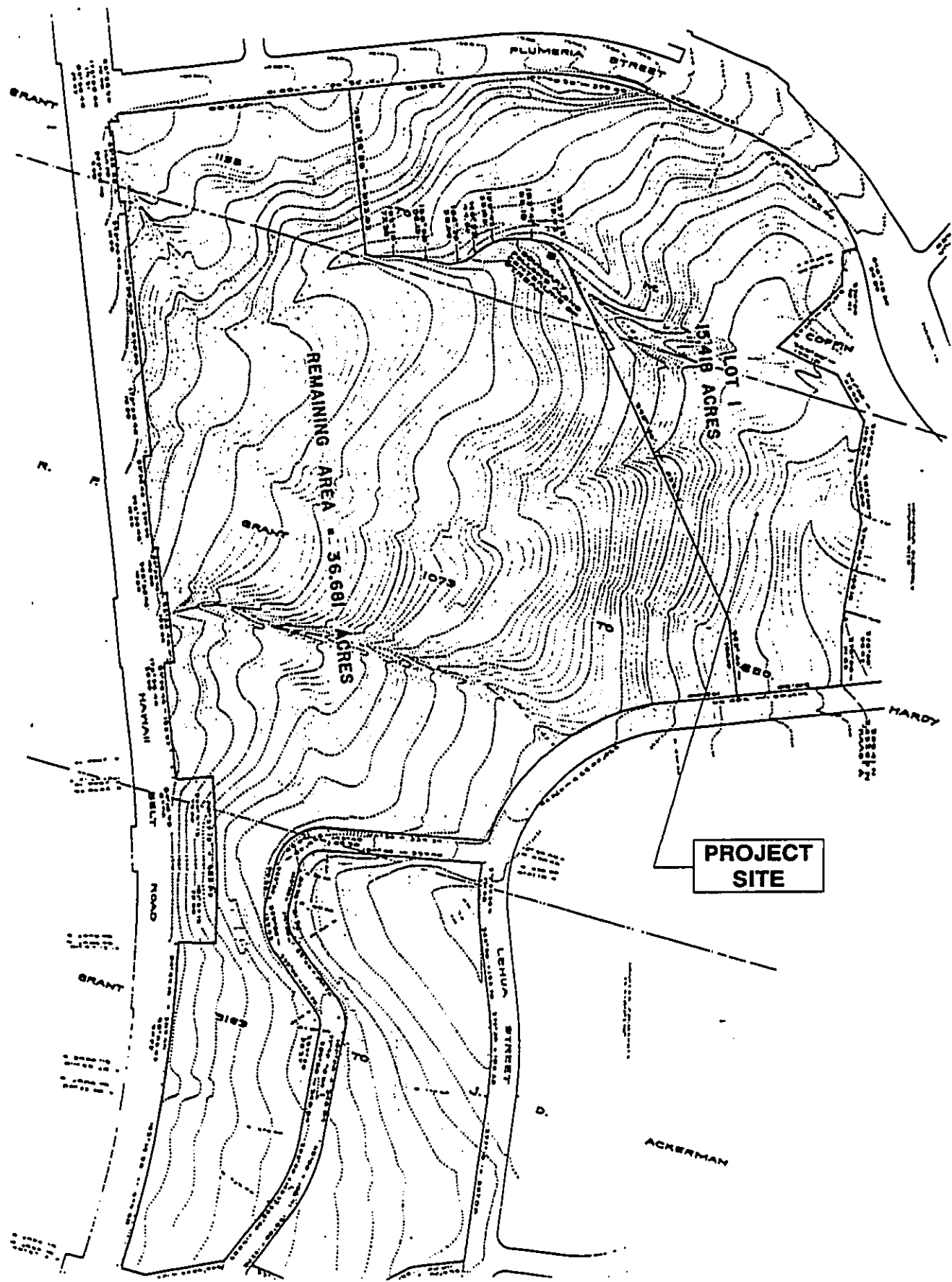


Figure 2 - Parcel Map

II. Existing Conditions

A. Study Area

The limits of the study area are generally defined between the project access driveway and Mamalahoa Highway. The intersections under study include:

- Mamalahoa Highway at Plumeria Street
- Mamalahoa Highway at Lehua Street
- Lehua Street at Plumeria Street
- Lehua Street at Pakalana Street

B. Existing Use and Anticipated Future Development

The project site is currently undeveloped. A proposed 102 dwelling unit single family residential subdivision is located immediately to the south of the project site. According to its developer, Honokaa Knolls is expected to be built out and occupied by 1995.

North of the proposed project site is the Honokaa Hospital and Clinic. The Honokaa Health Care Facility, located next to the Hospital, is under construction at this writing. The Clinic activities will be transferred to the new Health Care Facility and the Clinic will be converted into office space. A traffic impact study was prepared for the Honokaa Health Care Facility by Wilbur Smith Associates, dated December 3, 1991.

III. Existing Conditions

A. Site Accessibility

1. Area Roadway System

Mamalahoa Highway is a two lane, two way arterial highway, providing regional access to the Honokaa area. Mamalahoa Highway is posted at 55 miles per hour (mph) in the vicinity of the project. Mamalahoa Highway is unsignalized at Plumeria Street and signalized at Lehua Street. East bound Mamalahoa Highway provides an exclusive left turn lane at Plumeria Street. Exclusive left turn lanes are not provided on Mamalahoa Highway at Lehua Street.

Plumeria Street is a two way, two lane collector roadway that extends from Mamalahoa Highway to Lehua Street. Plumeria Street continues northward as Lehua Street to Mamane Street in the commercial center of Honokaa.

Lehua Street forms a four-legged intersection with Mauna Loa Street and Mamalahoa Highway. Lehua Street continues northward to Mamane Street as Pakalana Street. Lehua Street, between Pakalana Street and Plumeria Street, is a narrow, winding roadway. This narrow, winding section of Lehua Street is planned by the County for realignment to intersect Pakalana Street. No schedule for the road improvement is available at this writing.

Pakalana Street provides access to Honokaa Elementary and High Schools. Between 7:30 AM and 8:15 AM and between 1:00 PM and 2:30 PM, Pakalana Street becomes a one way street in the mauka bound direction, between Honokaa Elementary and High Schools and Lehua Street.

B. Existing Traffic Volumes and Operating Conditions

1. General

a. Field Investigation

A manual traffic count survey was conducted in the project vicinity in April, 1993, during the peak periods of traffic between the hours of 6:00 AM to 8:30 AM, and 3:30 PM to 5:30 PM. Additional traffic count data were obtained from the State Department of Transportation and other studies conducted in the vicinity.

b. Capacity Analysis Methodology

The highway capacity analysis performed for this study is based upon procedures presented in the "Highway Capacity Manual" (HCM), Special Report 209, Transportation Research Board, 1985 and the "Highway Capacity Software", Federal Highways Administration.

Level of Service (LOS) is "defined as a qualitative measure describing operational conditions within a traffic stream". Several factors are included in determining LOS such as: speed, delay, vehicle density, freedom to maneuver, traffic interruptions, driver comfort, and safety.

LOS "A", "B", and "C" are considered satisfactory levels of service. LOS "D" is generally considered a "desirable minimum" operating level of service. LOS "E" is an undesirable condition and LOS "F" is an unacceptable condition.

"Volume-to-capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road's traffic carrying ability. A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50% of the roadway's capacity.

2. AM Peak Hour Traffic Analysis

The AM peak hour of traffic in the vicinity of the project occurs between 7:15 AM and 8:15 AM. Lehua Street at Mamalahoa Highway operates at LOS "D" during the existing AM peak hour of traffic. The remaining intersections and roadways in the study area operate at satisfactory LOS during existing AM peak hour of traffic. Figure 3 shows the existing AM peak hour traffic volumes and operating LOS.

3. PM Peak Hour Traffic Analysis

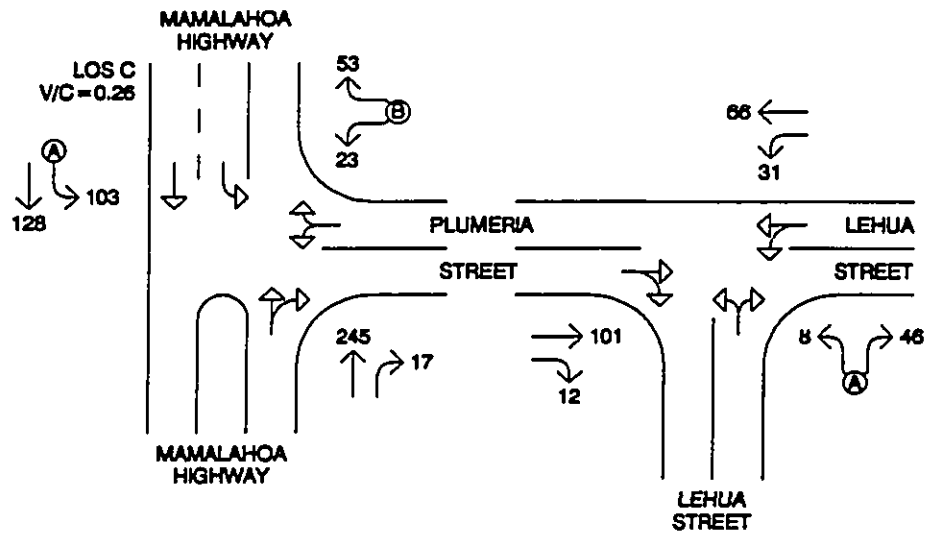
The PM peak hour of traffic generally occurs between 3:45 PM and 4:45 PM. The intersections and roadways in the study operate at satisfactory LOS during the existing PM peak hour of traffic. Figure 4 shows the PM peak hour traffic volumes and operating LOS.

IV. Projected Traffic

A. Site Traffic

1. Trip Generation

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in "Trip Generation", 5th Edition, 1991. The ITE trip rates for a residential condominium are developed by correlating the vehicle trip generation data with various land use characteristics, such as vehicle trips per dwelling unit.



- LEGEND**
- 90 TRAFFIC MOVEMENT VOLUME (VPH)
 - LANE CONTROL
 - LOS LEVEL OF SERVICE (TWO LANE HWY)
 - V/C VOLUME-TO-CAPACITY RATIO (TWO LANE HWY)
 - (A) LEVEL OF SERVICE (UNSIGNALIZED CONDITIONS)

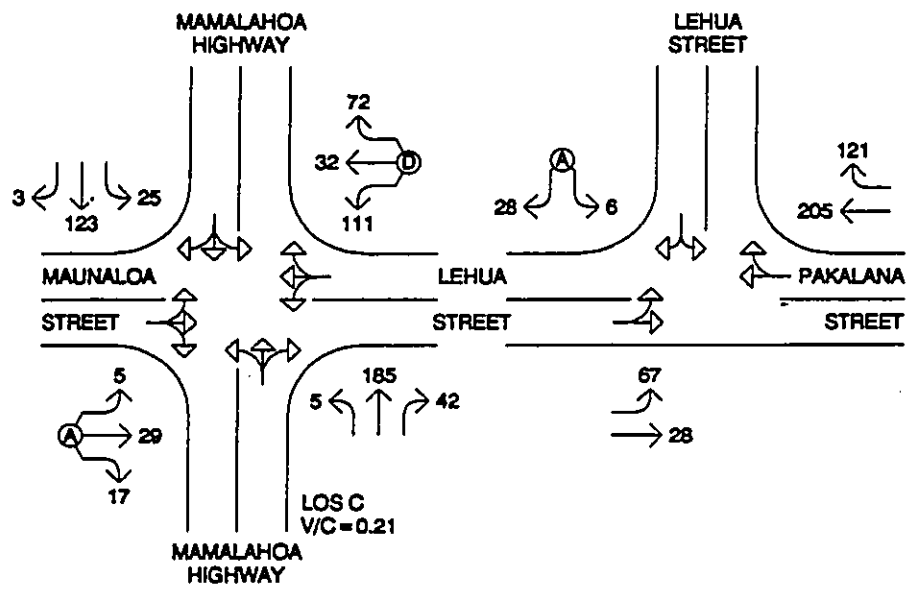
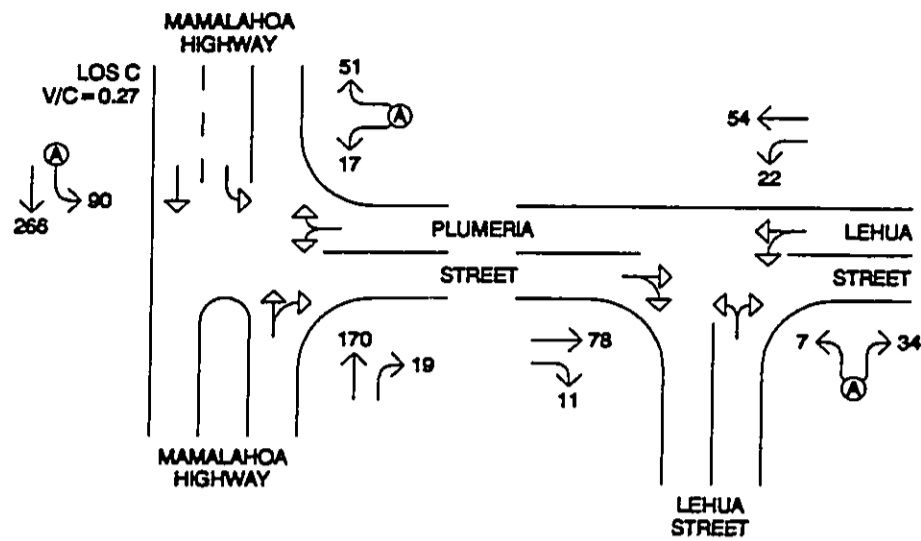


Figure 3 - Existing AM Peak Hour Traffic



- LEGEND**
- TRAFFIC MOVEMENT VOLUME (VPH)
 - LANE CONTROL
 - LOS LEVEL OF SERVICE (TWO LANE HWY)
 - V/C VOLUME-TO-CAPACITY RATIO (TWO LANE HWY)
 - Ⓐ LEVEL OF SERVICE (UNSIGNALIZED CONDITIONS)

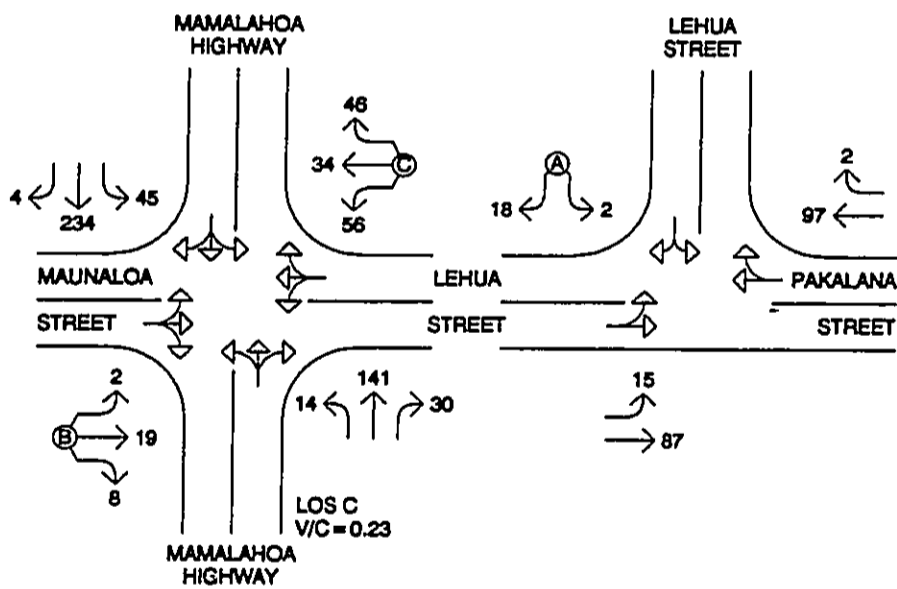


Figure 4 - Existing PM Peak Hour Traffic

The proposed 75-unit multi-family housing project is expected to generate a total of 41 vehicles per hour (vph) during the AM peak hour of adjacent street traffic, 7 vph entering the site and 34 vph exiting the site. During the PM peak hour, the proposed project is expected to generate 49 vph, 33 vph entering the site and 17 vph exiting the site.

B. External Traffic

1. Future Off-Site Traffic In Study Area

Honokaa Knolls is a 102-lot single family residential subdivision located immediately to the south of the project site. Honokaa Knolls is expected to be completed by 1995. Honokaa Knolls is expected to generate a total of 82 vph during the AM peak hour and 110 vph during the PM peak hour. The traffic generated by Honokaa Knolls is included in the background traffic without the proposed project.

The traffic impacts for the Honokaa Health Care Facility were analyzed in the Wilbur Smith study. The analysis is adopted for use in this study. The traffic generated by the Honokaa Health Care Facility is included in the background traffic without the proposed project.

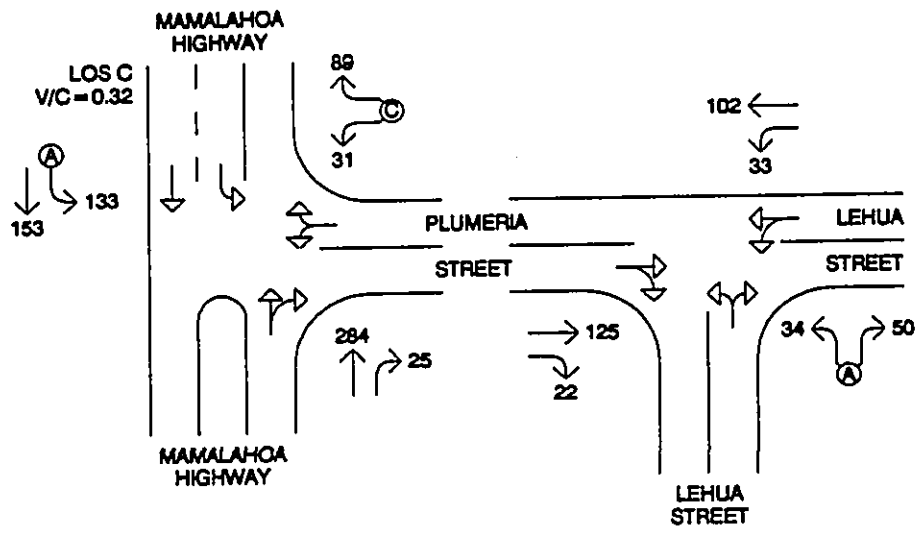
2. Projected Through Traffic

In addition to the traffic generated by the projects discussed previously, an overall growth in traffic is projected for the Year 1996, based upon the historical growth in traffic in the study area. The historical growth rates in traffic vary from 3.5% to 5.5% in the study area.

3. Total Traffic Volumes Without Project

During the AM peak hour of traffic without the proposed project, Lehua Street at Mamalahoa Highway is expected to operate at LOS E. The remaining intersections and roadways in the study area operate at satisfactory LOS during projected 1996 AM peak hour of traffic. Figure 5 shows the 1996 AM peak hour traffic volumes and operating LOS, without the proposed project.

By 1996, Mamalahoa Highway, west of Plumeria Street, is expected to operate at LOS "D" and a v/c ratio of 0.34, during the PM peak hour without the proposed project. Lehua Street at Mamalahoa Highway is expected to operate at LOS "D". The remaining intersections and roadways in the study



- LEGEND**
- TRAFFIC MOVEMENT VOLUME (VPH)
 - LANE CONTROL
 - LOS LEVEL OF SERVICE (TWO LANE HWY)
 - V/C VOLUME-TO-CAPACITY RATIO (TWO LANE HWY)
 - Ⓐ LEVEL OF SERVICE (UNSIGNALIZED CONDITIONS)

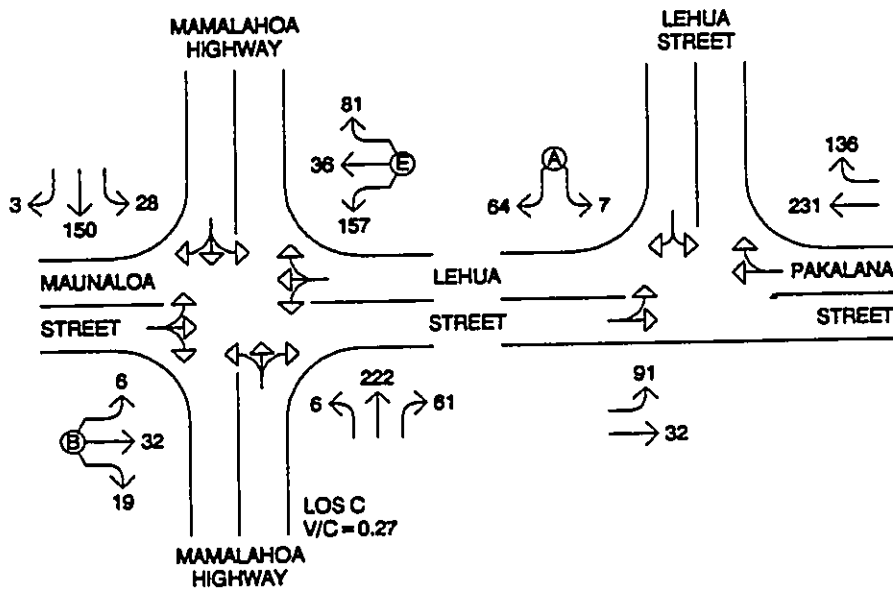


Figure 5 - 1996 AM Peak Hour Traffic Without Project

area operate at satisfactory LOS during 1996 PM peak hour of traffic without the proposed project. Figure 6 shows the projected PM peak hour traffic without the proposed project, respectively.

C. Total Traffic With Project

The site-generated traffic is superimposed over the projected 1996 background traffic. Figures 7 and 8 show the AM and PM peak hour traffic with the proposed project, respectively. The traffic impact analysis is discussed in the following section.

V. Traffic Impact Analysis

A. AM Peak Hour With Project

During the cumulative AM peak hour with the proposed project, Lehua Street at Mamalahoa Highway is expected to operate at LOS "F". Traffic crossing or turning onto Mamalahoa Highway can be expected to experience long delays. The Levels of Service at the remaining intersections in the study area either remain the same as the projected conditions without the project or operate at satisfactory Levels of Service. The project access is expected to operate at LOS "A" during the AM peak hour. The site-generated traffic is expected to utilize about 1% of capacity on Mamalahoa Highway.

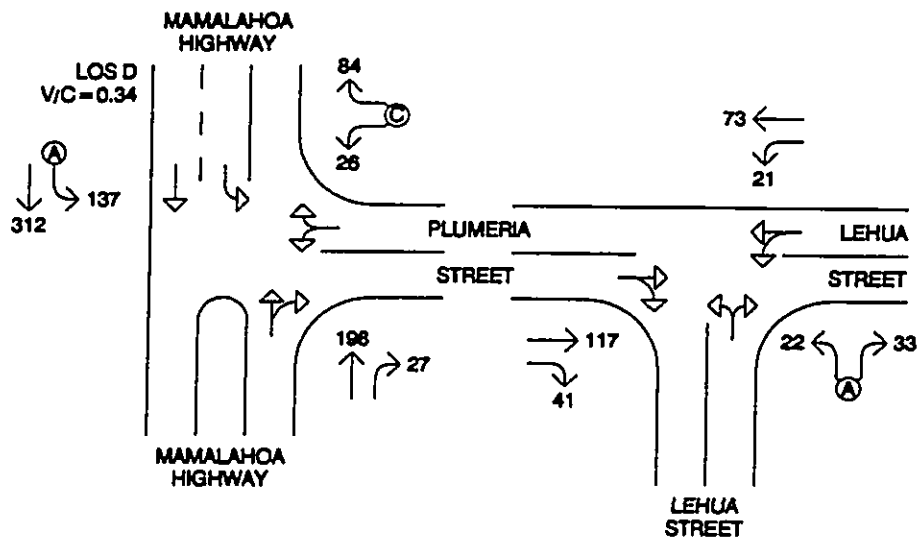
B. PM Peak Hour With Project

Lehua Street at Mamalahoa Highway is expected to operate at LOS "E" during the cumulative PM peak hour with the proposed project. The remaining Levels of Service in the study area either remain the same as the projected conditions without the project or operate at satisfactory LOS during the cumulative PM peak hour of traffic with the proposed project. The project access is expected to operate at LOS "A" during the PM peak hour. The site-generated traffic is expected to utilize between 1% and 2% of capacity on Mamalahoa Highway.

VI. Recommended Road Improvements

A. Improvements to Accommodate Future Traffic Without Project

Exclusive left turn lanes are expected to be warranted on Mamalahoa Highway at Lehua Street by the Year 1996 without the proposed project, based upon the American Association of State Highway and Transportation Officials



- LEGEND**
- 90 TRAFFIC MOVEMENT VOLUME (VPH)
 - LANE CONTROL
 - LOS LEVEL OF SERVICE (TWO LANE HWY)
 - V/C VOLUME-TO-CAPACITY RATIO (TWO LANE HWY)
 - (A) LEVEL OF SERVICE (UNSIGNALIZED CONDITIONS)

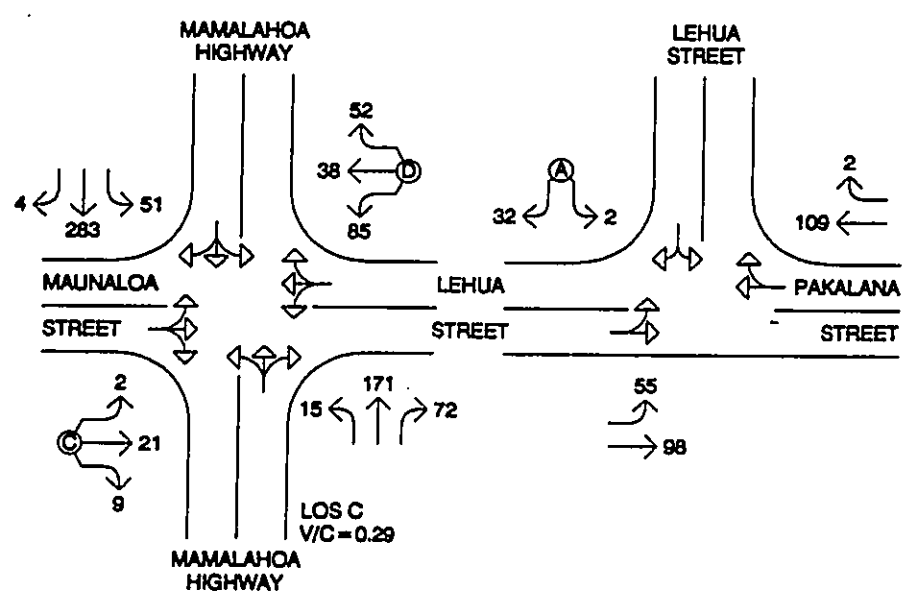


Figure 6 - 1996 PM Peak Hour Traffic Without Project

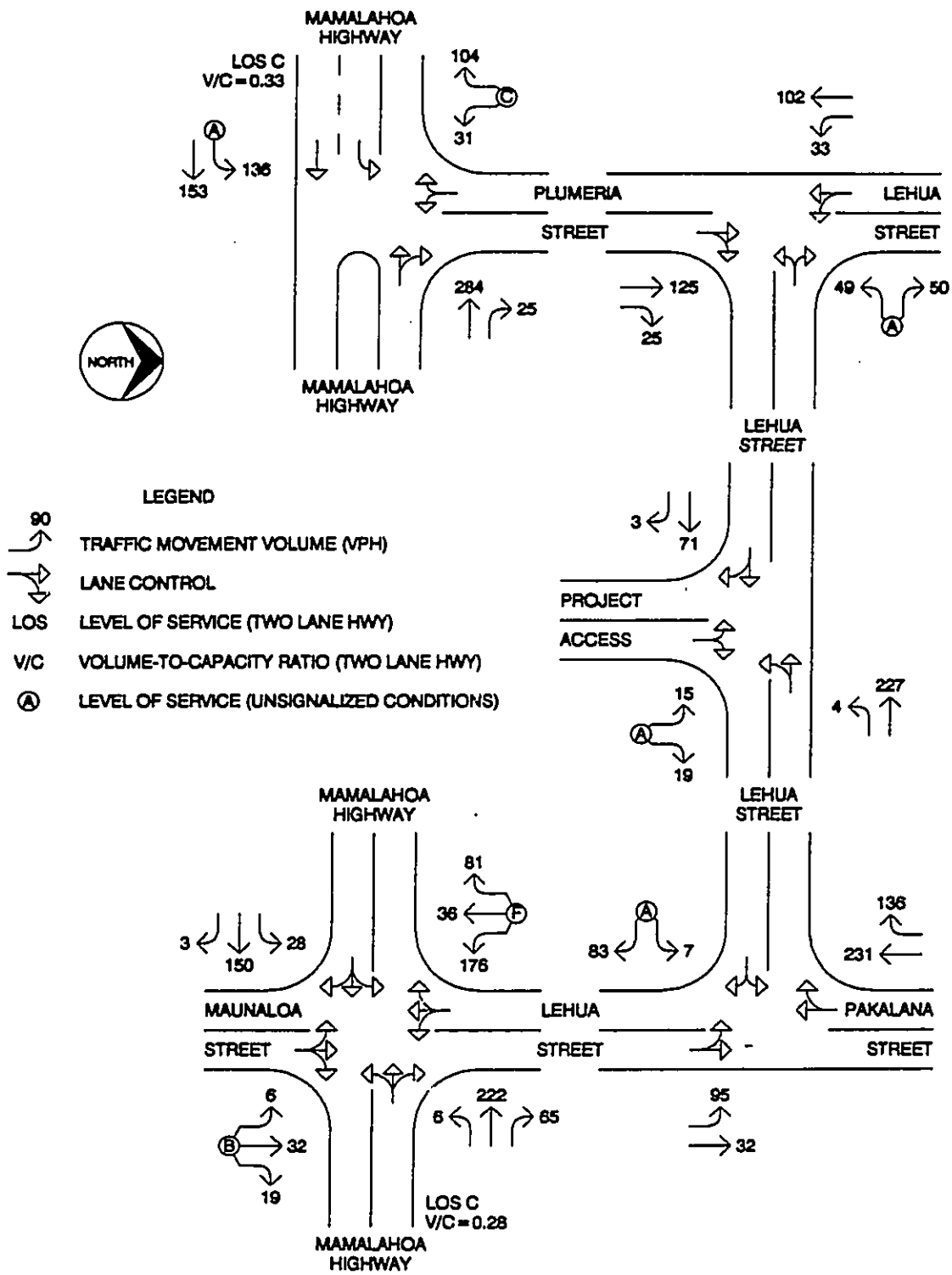


Figure 7 - Cumulative AM Peak Hour Traffic With Project

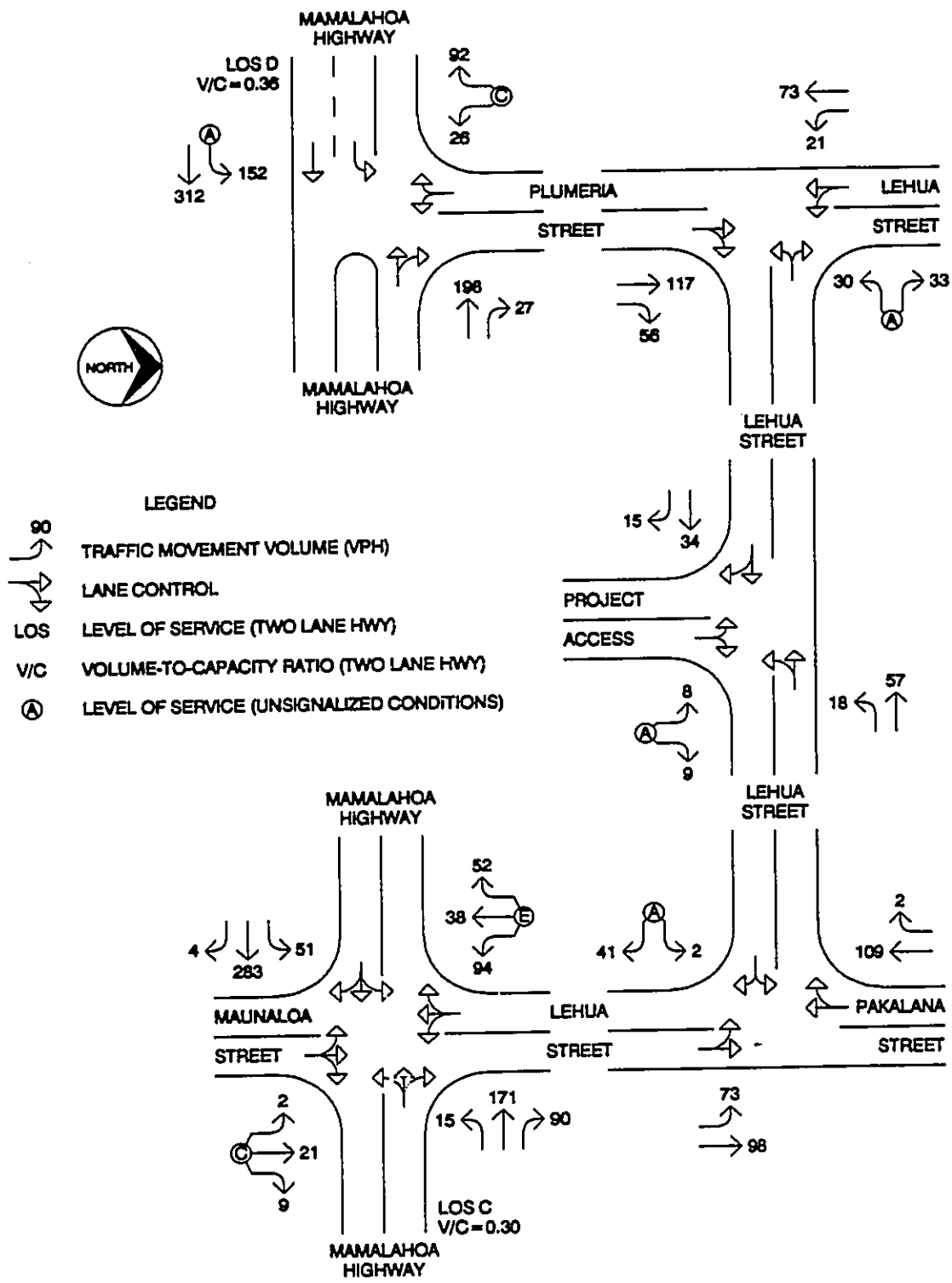


Figure 8 - Cumulative PM Peak Hour Traffic With Project

(AASHTO) guidelines. An alternative to widening Mamalahoa Highway would be to lower the operating speed on Mamalahoa Highway to 40 mph. The posted speed limit is 55 mph. Under the lower operating speed, exclusive left turn lanes would not be warranted. The lower operating speed also would improve the Levels of Service on the side street access.

B. Improvements to Accommodate the Site Generated Traffic

1. The mauka bound approach of Lehua Street at Mamalahoa Highway should be widened to provide an exclusive left turn lane. The separate left turn lane would improve the left turn movement from LOS "F" to LOS "E" during the AM peak hour. During the PM peak hour, the left turn movement from Lehua Street to Mamalahoa Highway would improve from LOS "E" to LOS "D".
2. Clear lines of sight from the project access driveway to Lehua Street, in both directions, should be established to accommodate adequate driveway sight distances. Appropriate sight distances should be determined at the design stage of the project.

VII. Conclusions

The traffic impact analysis, contained herein, is based upon the development of other projects in the vicinity within the time frame of this project, and an additional background growth in traffic based upon historical trends.

Based upon the analysis and with the implementation of the recommendations discussed herein, the proposed Honokaa Public Housing Project is not expected to have a significant impact on traffic operations in the study area.