

LINDA CROCKETT LINGLE
Mayor



DAVID W. BLANE
Director

GWEN OHASHI HIRAGA
Deputy Director

RECEIVED

COUNTY OF MAUI
PLANNING DEPARTMENT
250 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

SEP 27 12:14
OFC. OF ENVIRONMENTAL
QUALITY CONTROL

September 26, 1995

Mr. Gary Gill, Director
Office of Environmental Quality Control
200 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Mr. Gill:

Re: Final Negative Declaration for the Proposed Kula
Lodge Restaurant Expansion at Kula, Maui, Hawaii,
TMK: 2-3-22:87

The Maui County Planning Department, as the accepting authority, is transmitting for publication, in the upcoming OEQC Bulletin, the Final Environmental Assessment for the Kula Lodge Restaurant Expansion proposed by the applicant, Fred Romanchak.

A description of the proposed action is contained in the project summary which is attached to the enclosed OEQC Bulletin Publication Form. We have also enclosed four (4) copies of the Final Environmental Assessment.

Thank you for your cooperation. If further clarification is required, please contact Ms. Ann Cua of this office at 243-7735.

Very truly yours,

Gwen Ohashi Hiraga
DAVID W. BLANE
Director of Planning

DWB:ATC:sle
Enclosures
cc: Rory Frampton, Chris Hart & Partners
Fred Romanchak
Colleen Suyama
Ann Cua
Project File

135

-1995-10-08-MA-FA-Kula Lodge Restaurant Expansion

OCT 8 1995

FILE COPY

FINAL
ENVIRONMENTAL ASSESSMENT

KULA LODGE & RESTAURANT
EXPANSION

KULA, MAUI, HAWAII
TMK 2-3-22: 87



Prepared for:

Mr. Fred Romanchak, Owner
Kula Lodge & Restaurant
Kula, Maui, Hawaii
Phone: 878-1535

Prepared by:

Chris Hart and Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793
Phone: 242-1955

SEPTEMBER 1995

FINAL
ENVIRONMENTAL ASSESSMENT
KULA LODGE & RESTAURANT
EXPANSION

KULA, MAUI, HAWAII
TMK 2-3-22: 87



Prepared for:

Mr. Fred Romanchak, Owner
Kula Lodge & Restaurant
Kula, Maui, Hawaii
Phone: 878-1535

Prepared by:

Chris Hart and Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793
Phone: 242-1955

SEPTEMBER 1995

TABLE OF CONTENTS

SECTION	PAGE
Preface	1
I. INTRODUCTION.....	2
A. OVERVIEW OF THE REQUEST	2
B. IDENTIFICATION OF APPLICANT.....	2
C. APPROVING AUTHORITY	2
D. PROJECT LOCATION, EXISTING USE AND LAND USE DESIGNATIONS.....	3
1. Location	3
2. Existing Use	3
3. Land Use Designations	3
E. PROPOSED IMPROVEMENTS.....	4
F. PROPOSED AMENDMENTS	5
G. REASONS FOR THE PROPOSED AMENDMENTS.....	6
II. DESCRIPTION OF THE EXISTING ENVIRONMENT.....	8
A. PHYSICAL SETTING	8
1. Surrounding Land Uses - (See Figures 2 & 3).....	8
2. Topography and Soil Characteristics.....	8
3. Climate	9
4. Flood Hazard	9
5. Flora and Fauna	9
6. Archaeological Resources	10
7. Air Quality	10
8. Noise Characteristics	10
9. Visual Characteristics.....	10
B. SOCIO-ECONOMIC ENVIRONMENT	11
1. Population	11
2. Economy	11
C. PUBLIC SERVICES	11
1. Police and Fire Protection	11
2. Medical Facilities.....	12
3. Solid Waste	12
4. Schools	12
5. Recreational Facilities.....	13
D. INFRASTRUCTURE	13
1. Roadways.....	13
2. Wastewater.....	14
3. Water	14
4. Drainage.....	15

III. POTENTIAL IMPACTS AND MITIGATION MEASURES.....	16
A. PHYSICAL ENVIRONMENT.....	16
1. Surrounding Land Uses.....	16
2. Topography/Landform.....	17
3. Flora and Fauna.....	17
4. Archaeological Resources.....	18
5. Air Quality.....	18
6. Noise Quality.....	18
7. Visual Resources.....	18
B. SOCIO-ECONOMIC ENVIRONMENT.....	19
1. Population and Local Economy.....	19
2. Public Services.....	19
C. INFRASTRUCTURE.....	19
1. Roadways.....	19
2. Water.....	20
3. Wastewater.....	20
4. Drainage.....	21
IV. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES AND CONTROLS	
A. STATE LAND USE DISTRICTS.....	22
B. MAUI COUNTY GENERAL PLAN.....	22
C. MAKAWAO-PUKALANI-KULA COMMUNITY PLAN.....	23
V. FINDINGS AND CONCLUSIONS.....	24
VI. GOVERNEMENT AGENCIES CONTACTED DURING THE REVIEW OF THE DRAFT ENVIRONMENTAL ASSESSMENT.....	25

LIST OF FIGURES

- Figure 1 - Regional Location Map
- Figure 2 - Project Location and State Land Use Designation Map
- Figure 3 - Makawao-Pukalani- Kula Community Plan Land Use Map
- Figure 4 - Title Sheet (Elevations)
- Figure 5 - Site Plan
- Figure 6 - Basement Floor Plan
- Figure 7 - Lower Level Plan
- Figure 8 - Upper Level Plan
- Figure 9 - Building Sections

APPENDICES

- Appendix A - Proposed Amendments to Makawao-Pukalani-Kula Community Plan
- Appendix B - Proposed Amendments to Chapter 19.75 Makawao-Pukalani-Kula
Project District 1
- Appendix C - Transportation Impact Analysis
- Appendix D - Drainage and Erosion Control Report
- Appendix E - Draft EA Comments and Responses

Preface

Mr. Fred Romanchak, owner of the Kula Lodge and Restaurant is proposing to amend the Makawao-Pukalani-Kula Community Plan and the Phase 1 Project District Zoning approval to accommodate revised expansion plans for the Kula Lodge and Restaurant in Kula, Maui, Hawaii (TMK 2-3-22:87). Pursuant to Chapter 343, Hawaii Revised Statutes, Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules, and in connection with the Community Plan Amendment application, this Environmental Assessment (EA) documents the Project's technical characteristics and environmental impacts, and advances findings and conclusions relative to the significance of the project. In addition, this report addresses the proposed amendments to the Phase 1 Project District zoning contained in Chapter 19.75, Maui County Code.

I. INTRODUCTION

A. OVERVIEW OF THE REQUEST

This request involves amendments to the existing Project District 1 description in the Makawao-Pukalani-Kula (M-P-K) Community Plan and the previously approved Phase 1 Project District Zoning (Chapter 19.75, Maui County Code) for the Kula Lodge and Restaurant, in Kula, Maui Hawaii, TMK 2-3-22:87. The Community Plan's Project District 1 description and Chapter 19.75, Maui County Code (MCC), establish regulations for this project district with respect to permissible uses, density, hotel unit size, building height, setbacks and other development standards. These existing regulations contemplated expansion of the Kula Lodge with detached bungalow type lodging units and commercial structures. The Owner of the Kula Lodge, Mr. Fred Romanchak, is proposing to amend the Project District standards in order to accommodate revised expansion plans for a timber framed Main Lodge.

B. IDENTIFICATION OF APPLICANT

Applicant:

Mr. Fred Romanchak

Interest:

Mr. Romanchak is the fee simple owner of TMK 2-3-22:87 and owns the Kula Lodge and Restaurant and all other associated structures on the property.

Applicant's Agent:

Mr. Christopher L. Hart, Chris Hart & Partners; Landscape Architecture and Planning, 1955 Main Street, Suite 200, Wailuku, Hawaii 96793 (Bus. Phone: 242-1955/ Fax: 242-1956).

C. APPROVING AUTHORITY

Applications to amend the Community Plan and Phase 1 Project District zoning are processed by the Maui County Planning Department and subject to public hearing and recommendation by the Maui Planning Commission and final action by the Maui County Council. (MCC §2.80.060 and §19.45.050.A) The

determination regarding the Environmental Assessment is made by the Maui County Planning Department.

D. PROJECT LOCATION, EXISTING USE AND LAND USE DESIGNATIONS

1. Location

The Kula Lodge and Restaurant are located on an approximately 3.76 acre parcel, identified as Maui Tax Map Key Number: 2-3-22:87, in Upper Kula on the west side of Haleakala Highway between Kimo Drive and Ainakula Road. See Figures 1 and 2.

2. Existing Use

Existing structures and uses on the property consist of the following:

- A Restaurant, Art Gallery, and Gift Shop - all within the main structure. The Art Gallery and Gift Shop offer visitors exposure to local artists and crafts.
- The Hawaii Protea Corporation, consisting of a gift shop along Haleakala Highway and a 2,800 square foot flower packing facility for packing and shipping of cut flowers grown on the property and on other Kula farms. This operation is one of the largest distributors of cut flowers in the State of Hawaii.
- Two bungalow type structures containing a total of five lodging units.
- An extensive array of agricultural and landscape planted areas which include over 300 varieties of flowering and edible plants. The cut flowers are sold through the packing facility on site and the edible fruits, vegetables and herbs are utilized by the restaurant.

3. Land Use Designations:

State Land Use Designation: **Urban (See Figure 2)**

Makawao-Pukalani-Kula Community Plan: **Project District 1 (See Figure 3)**

County Zoning: **Project District 1(Lodge PD-MPK/1) Chapt.19.75, MCC**

The Project District 1 designation in the Makawao-Pukalani-Kula Community Plan (1987 version) is intended to provide for the proper development of the area for retreat resort use. The plan states:

"This project district should primarily contain retreat accommodations that provide a restful and quiet experience in an isolated location. Existing restaurant and hotel use shall be allowed along with other limited expansion for other hotel related uses. Open space and landscaping are to be common and integral functions of the project district development plan." (pg. 26)

The Phase 1 Project District zoning (Chapter 19.75, MCC) establishes further specificity regarding permissible land uses, appropriate standards of development and specific allocation of building area for hotel and commercial uses within the defined project district.

The Community Plan and the Project District zoning both provide for a maximum of four (4) hotel units per acre (prorated), which translates to 15 units for the subject 3.76 acre property.

E. PROPOSED IMPROVEMENTS

The proposed amendments are intended to accommodate revisions to the already approved expansion plans. The revised project plans involve constructing a timber framed lodge, the first of its kind ever to be built in Hawaii. The new Lodge would be connected to the existing restaurant and would also contain a total of 13 lodging units. See Figures 4, 5, 6, 7, 8, & 9. Ten of the units would be 592 sq. ft. and 2 of the units would be approximately 830 sq. ft. A caretakers unit would be 2,015 sq. ft. The art gallery and gift shop which are currently in the restaurant building would be moved to the Main Lodge structure and the restaurant would be refurbished and expanded. An outdoor dining area would also be provided fronting the western (makai) side of restaurant and lodge.

The existing protea gift shop along Haleakala Highway and triplex bungalow unit would be demolished while the existing duplex unit to the north of the existing parking lot would remain. The Produce Market which was proposed to be located

fronting Haleakala Highway in the approved Phase 1 Project District zoning, would be integrated with the Gift Shop and located within the Main Lodge.

Site improvements include the provision of parking and internal circulation designed to accommodate automobiles, busses and emergency vehicles. The existing northern most driveway will be eliminated, the existing southernmost driveway will be widened, and one driveway will be added approximately 190 feet south of the existing southernmost driveway. A separate loading area will be provided for delivery/service vehicles. The proposed parking and circulation plan also provides for a turn around area large enough to fit fire trucks and a separate area on site for bus loading, parking and circulation which will result in improved highway operations.

F. PROPOSED AMENDMENTS

Community Plan:

The proposed amendments to the Community Plan Project District 1 description are summarized as follows (see **Appendix A** Proposed Amendments to Makawao-Pukalani-Kula Community Plan):

1. Increasing the maximum hotel unit size from 500 to 850 sq. ft.
2. Increasing the commercial use allocation from 7,500 to 16,000 sq. ft.
3. Deleting the maximum hotel unit per building requirement.
4. Including a Produce/Gift Shop as one permitted Commercial use instead of two separate uses.
5. Providing clarification to the setback standards and size of the Protea co-op to conform to standards in the Project District Ordinance (Chapter 19.75, MCC).
6. Providing clarification that the Protea co-op could be used as a Produce co-op and/or a Farmers Market.
7. Deleting the two-story restriction from the height requirement, while maintaining the thirty-five foot height limit.

Chapter 19.75

The proposed amendments to the Phase 1 Project District Zoning, Chapter 19.75, MCC, are summarized as follows (see **Appendix B** Proposed Amendments to Chapter 19.75 Makawao-Pukalani-Kula Project District 1):

1. Permitted uses are amended by changing Produce Market to Produce/Gift Shop and by adding Art Gallery.
2. Providing clarification that the Produce co-op could also be used as a Farmers Market.
3. Specifying that the brewing of beer for consumption within the restaurant and lodge is a permitted accessory use.
4. Deleting the maximum hotel unit per building requirement.
5. Increasing the allowable square footage for the Restaurant from 6,500 to 8,405 sq. ft. and allowing for an outdoor dining area up to 2,550 sq. ft.
6. Increasing the maximum living area per hotel unit from 580 sq. ft. to 850 sq. ft., with the exception of one 2,015 sq. ft. caretaker's unit.
7. Specifying that the Produce/Gift Shop would be located within the Main Lodge with an allowable area of 2,230 sq. ft.
8. Providing that the Art Gallery would be located within the Main Lodge with an allowable area of 1,990 sq. ft.
9. Deleting the two-story restriction from the height requirement, while maintaining the thirty-five foot height limit.

G. REASONS FOR THE PROPOSED AMENDMENTS

Expansion of the Kula Lodge and Restaurant was initially proposed during the creation of the existing Community Plan. With the plan's adoption in 1987, Project District 1 was created in order to "provide for the proper development of the area for retreat resort use." (pg. 26)

After the Community Plan's adoption, Mr. Fred Romanchak, owner of the Kula Lodge, applied for and received Phase 1, Project District zoning for the parcel (approved on 12/13/89). At the time, expansion plans envisioned the creation of additional detached bungalow lodging units throughout the property as well as expansion of commercial uses along Haleakala Highway. However, the subsequent build-out of surrounding residential properties has undermined the intent to create private and tranquil settings for detached bungalow units. Development of surrounding properties as well as a desire to provide a true lodge type setting has led to a revision of the original development plans.

The proposed improvements would result in all of the commercial space being located within the Main Lodge or the restaurant. This arrangement will further insulate the commercial uses from the surrounding land uses as well as provide a more direct relationship to the lodge operations. As proposed in the approved Project District 1 plans, the Produce Market and Gift Shop would be detached, stand alone structures with direct access and visibility from Haleakala Highway. Under the proposed revisions, the commercial uses would be operate in direct association with the Lodge rather than as separate commercial establishments.

The request for an increase in commercial square footage would support the revised plans and is necessary in order to: better serve guests and visitors; provide a supplemental revenue source for the Kula Lodge operations; and, support the economic base of the Kula region. The additional commercial space represents an increase in existing uses rather than establishment of new types of uses. These uses are low intensity and provide necessary amenities for visitors and guests to the Kula Lodge and Restaurant. In addition, the existing art gallery, gift shop and protea facilities provide exposure to local artists and crafts, supporting of the economic base of the Kula community. Expansion of these uses would provide additional support for local farms and businesses.

II. DESCRIPTION OF THE EXISTING ENVIRONMENT

A. PHYSICAL SETTING

1. Surrounding Land Uses - (See Figures 2 & 3)

North: Single Family residences on lots ranging in size from 6,000 to 14,000 sq. ft. with access from Haleakala Highway and Lower Kimo Drive. This area is designated Single Family in the M-P-K Community Plan and is within the State Urban District.

South: Kula Orchards Subdivision, Single Family residences on lots ranging in size from approximately 6,000 to 12,000 sq. ft. in size with access from Ainakula Road and Kulalani drive. This area is designated Single Family in the M-P-K Community Plan and is within the State Urban District.

West: Vacant lot approximately 3.9 acres in size and further west a flower farm. This area is designated Rural in the M-P-K Community Plan and is within the State Urban District.

East: Haleakala Highway and Rural residential housing along Upper Kimo Drive. This area is designated Rural in the M-P-K Community Plan and is within the State Rural District

2. Topography and Soil Characteristics

Well-defined dry gulches separate the northern and southern boundaries of the site from adjoining land areas. The subject property slopes generally toward its western boundary and the two gulches.

The "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)", page 109, classifies the soil at the project site and vicinity as Pane Series, Pane Silt Loam, (PXD, 7 to 25 percent slopes). Permeability for this soil is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate. Available water capacity is 1.8 inches per

foot of soil in the surface layer and subsoil (typically, 8 inches and 49 inches thick respectively.)

3. Climate

Kula's climatic pattern is typical of most mountainous areas in Hawaii. The morning periods are generally sunny, followed by an afternoon build up of cumulus clouds which may bring intense, yet brief, showers.

Average temperatures at the project site (based on temperatures recorded at the Kula Hospital) range from lows in the low-50's to highs in the mid-80's. Rainfall at the project site averages approximately 30 to 40 inches annually. Winds at the project site are generally diurnal, blowing up from the ocean (west) during the day and reversing in the evening, blowing down from the mountain (east).

4. Flood Hazard

The site is not within any area designated by the U.S. Federal Emergency Management Agency, Federal Insurance Administration, as a floodway area. While providing good drainage, the gulches adjoining the site are the upper reaches of a well-defined drainage way feeding Pulehu Gulch and are not subject to appreciable runoff from upstream. [Flood Insurance Rate Map, Panel 150003 0300B (panel not printed)]

5. Flora and Fauna

The entire site has been previously disturbed and thus there are no significant native habitat areas. The property has extensive agricultural and landscape planted areas which contain over 300 varieties of flowering and edible plants. The cut flowers are sold through the packing facility on site and the edible fruits, vegetables and herbs are utilized by the restaurant.

6. Archaeological Resources

Based on conversations with staff from the State Historic Preservation Division, there are no known historical sites on the subject property or in the immediate vicinity of the project area. In addition, since the site has been previously disturbed, the presence of historical features is considered extremely remote.

7. Air Quality

There are no point sources of airborne emissions in the immediate vicinity of the project site. The air quality of the Kula region is considered good, with existing airborne pollutants attributed primarily to automobile exhaust from the region's roadways. The area is also subject to occasional dust and equipment emissions associated with agricultural activities.

8. Noise Characteristics

Surrounding noise levels in the Kula region are characteristic of its rural atmosphere and are considered relatively low. Background noise levels are attributed to natural (e.g. wind) conditions, traffic from Haleakala Highway, and the operation of agricultural equipment, such as tractors, sprayers, and trucks which operate on an intermittent basis.

9. Visual Characteristics

Situated on the slopes of Haleakala, Kula has an expansive scenic view. From the project site, looking west (makai), Maui's central isthmus is visible, including both Kahului Bay and Maalaea Bay, as well as the West Maui Mountains. East (mauka) of the site, a portion of the upper slopes of Haleakala can be seen.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

The population of the County of Maui has exhibited relatively strong growth over the past decade with the 1990 population estimated to be 100,374, a 41.7% increase over the 1980 population of 70,847. Growth in the County is expected to continue, with resident population projections to the years 2000 and 2010, estimated to be 123,900 and 145,200, respectively (DBED, 1990).

The estimated 1990 population of the Makawao-Pukalani-Kula Community Plan region is 18,923. A projection of the region's population shows an increase to 21,584 by the year 2000. By the year 2010, population is anticipated to range between 23,318 to 24,310 (Community Resources, Inc., 1992).

2. Economy

Agriculture and tourism are vital components of Maui's economy. The cultivation of pineapple and sugar cane and the tourist industry provides for much of the Island's economic stability.

The economy of Kula is heavily dependent upon agriculture. Kula's rich soil has helped the region become famous for the quality of vegetables and flowers exported to Hawaiian and international markets. Ranching of cattle and other farm animals is also an important element of Kula's economy.

C. PUBLIC SERVICES

1. Police and Fire Protection

The County of Maui's Police Department is headquartered at its Wailuku Station. The Department consists of several patrol, investigative, and administrative divisions. The Department's Upcountry patrol covers the Makawao-Pukalani-Kula region.

Fire prevention, suppression, and protection for the Kula region is offered by the County's recently completed Kula Fire Station. The new station is located on the Kula Highway, adjacent to Kula Elementary School, approximately 5 miles away.

2. Medical Facilities

Maui Memorial Hospital, the only major medical facility on the Island, services the Kula Region. Acute, general and emergency care services are provided by the 145-bed facility which is located in Wailuku. Medical/dental offices are located in Pukalani and Makawao to serve the Upcountry region's residents.

3. Solid Waste

With the closure of the Makawao Landfill, all solid wastes generated in the Upcountry region are transported to the Central Maui Landfill in Puunene. Outside of Hana, the Central Maui Landfill is the only disposal site on the island of Maui. In 1994, solid waste was arriving at the Central Maui Landfill at a rate of 401.1 tons per day, down from the amount of solid waste arriving in 1988 which was 640 tons per day (Solid Waste Characterization Study, December 1994). The Makawao-Pukalani-Kula and Paia-Haiku regions accounted for approximately 16% of the volume entering the landfill. Solid waste collection at the Kula Lodge and Restaurant is handled through Maui Recycling and Maui Disposal.

4. Schools

The State of Hawaii, Department of Education, operates four (4) public schools in Upcountry Maui. They are (with 1995 enrollment in parenthesis): Makawao Elementary School (740), Kalama Intermediate School (1215), Pukalani Elementary School (574), and Kula Elementary School (536). High school students from Upcountry are serviced by Maui High School located in Kahului.

The region is also served by privately operated Haleakala School (grades K-8th) and Seabury Hall (grades 6th-12th).

5. Recreational Facilities

Upcountry Maui is served by numerous recreational facilities offering diverse opportunities for the region's residents and visitors. These facilities include the County's Keokea Park, Rice Park, Kula Gym, Eddie Tam Center Park/Gym, and the recently finished Kula Recreation Center. In addition, Haleakala National Park and Polipoli State Park, located on the upper slopes of Haleakala, offer hiking, camping, and sight seeing opportunities.

D. INFRASTRUCTURE

1. Roadways

Kula Lodge is located on Haleakala Highway (Highway 377), approximately 6 miles south of Kula Highway (Highway 37), and approximately 2 miles north of Crater Road (Highway 378). Haleakala Highway is a two-lane undivided highway owned and maintained by the State Department of Transportation. Haleakala Highway is the primary route to Haleakala National Park and provides access to Upper Kula for local residents.

It is estimated that approximately 80 percent of all traffic generated by the Kula Lodge and Restaurant during the morning and afternoon peak hours can be classified as pass-by trips. Pass-by trips are defined as currently existing on the roadway that provides primary access and are being made for some other purpose (e.g. visiting Haleakala National Park). Pass-by trips do not result in any increase in background traffic volumes in the study area and typically have no additional effect on the road system beyond the development's driveways where they become turning movements.

A traffic impact analysis was conducted in September 1994 to assess the existing and future traffic conditions at the site. See Appendix C. With respect to existing conditions, the driveways serving the Kula Lodge and Restaurant currently operate at an acceptable level of service (LOS "A") during both the morning and afternoon peak hours. Sight distance measurements taken at the existing driveway locations for both the north and south driveways were in excess of 600 feet. Based on observed speeds at the site,

conservative intersection site distance requirements are in the range of 450-500 feet.

2. Wastewater

The Makawao-Pukalani-Kula region is not serviced by a County wastewater treatment system. A portion of Pukalani is serviced by a private wastewater treatment system, while the remainder of the upcountry region is served by cesspools or septic tanks. The State Department of Health (DOH) has designated a critical wastewater disposal area throughout most of the Island, including the Makawao-Pukalani-Kula region. Within the indicated critical areas, septic tanks are required for wastewater disposal, while in the non-critical areas, cesspools are permitted with DOH approval. The proposed project is located within the critical area.

3. Water

The subject area is served by the Kula municipal water system. The Kula system, supplied entirely by surface water sources, consists of an upper and lower system. The project site is located within the upper system. The upper system, located at the 4,000 feet elevation, collects surface water from Haipuaena, Puohakamoa and Waikamoi Streams. The major storage reservoirs include a 10 million gallon (MG) Upper Waikamoi dam/reservoir, a lower concrete Waikamoi dam, two 15 MG open concrete Waikamoi tanks, two recently constructed 50 MG Kahakapao reservoirs, and a 3 MG steel Olinda tank. The water treatment plant, located in Olinda, has a capacity of 1.7 million gallons per day (MGD).

The project site is presently served by a two inch water meter. A six inch transmission line fronts the property along Haleakala Highway and a fire hydrant is located immediately adjacent to the existing protea gift shop near the southern most driveway access.

4. Drainage

The site is protected from off-site runoff on its eastern boundary by roadside ditches along Haleakala Highway. Existing drainage patterns divide on-site runoff between the northern and southern gulches which empty into Pulehu Gulch. For the 50-year 1-hour design storm, existing on-site drainage patterns would discharge 10.70 cfs by sheet flow. See Appendix D.

III. POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

Properties adjacent to the northern, southern and western boundaries are within the State "Urban" District. Adjacent areas to the north and south consist of residential lots ranging in size from 6,000 to 14,000 sq. ft. An informational briefing was held for all property owners within 500 ft. of the property on Wednesday, September 20, 1995. Comments received during the meeting related primarily to immediate impacts on neighboring properties relating to noise, views, drainage, and traffic. (See Roadways and Drainage sections III.C.1 & 4 below.)

The Kula Lodge Project District Ordinance (Chapter 19.75, MCC) establishes setback and landscape requirements in order to minimize impacts to neighboring properties. The building setback along the southern boundary is established at 50 feet, five times more than the setback requirement that would be established for a business zoned property which abuts a residential district. A majority of the perimeter of the property has landscape planting in place which acts as a visual and noise buffer for surrounding properties. The landscape improvements were planted in 1988 to mitigate potential visual impacts from surrounding properties. New landscape plantings will be installed around the southern perimeter of the lower parking lot to limit the impact of automobile headlights on properties on Ainakula Road to the south.

The revised expansion plan consolidates much of the existing uses into the proposed main lodge building and thus should have less of an impact on surrounding properties than the original plans which consisted of detached bungalow type structures housing the visitor units and a detached produce market fronting Haleakala Highway. Relocating the lodging units into the proposed main lodge would also insulate guests from surrounding properties which have been substantially built out at urban densities.

2. Topography/Landform

As indicated above, the soil at the project site and surrounding vicinity consists of the Pane Series, Pane Silt Loam, (PXD, 7 to 25 percent slopes), characterized as having a slight to moderate erosion hazard, with a slow to moderate runoff, and moderately rapid permeability. This type of soil has a soil erodibility factor (K) of 0.17 according to the "Erosion and Sediment Control Guide for Hawaii, SCS (March, 1981)", page 56.

The area to be disturbed during construction is approximately 1.8 acres.

Erosion control measures will be guided by Chapter 20.08, "Soil Erosion and Sedimentation Control", of the Maui County Code and the Hawaii State Department of Health Clean Water Branch. The site to be disturbed is less than five acres and therefore will not require a NPDES permit. The specific measures shall include:

1. Use of sprinklers and/or water wagon during construction period to control wind borne dust.
2. Grassing, planting or paving all exposed areas immediately upon completion of construction work.

3. Flora and Fauna

There are no known rare, endangered or threatened species of flora within or surrounding the project site. As such the removal of existing vegetation is not considered an adverse impact to this component of the environment.

There are no known rare, endangered or threatened species of fauna or avifauna within or surrounding the project site. The proposed project is not expected to have any significant adverse impacts to the area's fauna or avifauna population.

4. Archaeological Resources

The project is not anticipated to have any adverse effects on historical or cultural resources in the area.

5. Air Quality

Air Quality in the immediate vicinity of the project site is anticipated to be affected by short-term construction activities. Earthwork operations, for example, will result in fugitive dust being generated. However, dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind-blown emissions.

On a long-term basis, the project will not generate adverse air quality conditions. The expansion of the Kula Loge and Restaurant will not result in the release of noxious gases, particulates or odors.

6. Noise Quality

As was the case with air quality, ambient noise conditions will be impacted by construction activities. Construction equipment, such as bull dozers, front end loaders and materials-carrying trucks, would be the dominant source of noise during the site construction period. Construction is anticipated to be limited to daylight hours only. Construction noise is not considered to have a significant adverse impact upon the vicinity.

On a long-term basis, the expansion of the Kula Loge and Restaurant is not anticipated to generate adverse noise conditions for the surrounding region.

7. Visual Resources

The proposed project is not part of a unique scenic corridor and will not have an adverse impact upon the visual character of the surrounding area. The roofline of the proposed Main Lodge has been designed at the same height as the existing restaurant. Thus, existing views from Haleakala Highway and mauka residences will be maintained. The architectural appearance of the

proposed Main Lodge will complement the existing restaurant building as well as Kula's rural/country character.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Local Economy

On a short-term basis, the project will support construction and construction-related employment.

On a long-term basis, the project will aid the long-term economic vitality of the region by providing employment opportunities at the restaurant as well as at the lodge. It is anticipated that the proposed expansion will create approximately 15 new jobs.

2. Public Services

The expansion of the Kula Lodge and Restaurant will result in the employment of approximately 15 additional full time employees. At this staffing level, the employment related impacts of the project upon public service needs, such as police, fire, medical, and schools are not considered significant.

C. INFRASTRUCTURE

1. Roadways

The proposed expansion is conservatively estimated to generate 5 additional trips at the site driveways during the morning and afternoon peak hours, a negligible increase in total traffic volumes on Haleakala Highway. See **Appendix C**. It is noted that most of the Lodge's peak hour(s) business comes from traffic that is already passing by the site on its way to or from Haleakala National Park. With the addition of site-generated traffic resulting from the expansion, the site driveways will continue to operate at LOS "A" during the peak hours.

As part of the proposed expansion, the existing northern most driveway will be eliminated, the existing southernmost driveway will be widened, and one driveway will be added approximately 190 feet south of the existing southernmost driveway. All proposed site driveways will have clear sight lines that exceed 500 feet, which will allow traffic to safely ingress/egress the site. An examination of left-turn lane warrants indicated that an exclusive left-turn lane is not warranted at either site driveway.

The following improvements are anticipated to result from the proposed modifications to access, parking and circulation:

- 1) The proposed expansion will greatly improve internal circulation as a result of a wider primary ingress/egress drive that will not be obstructed by on-street parking maneuvers or parked delivery/service vehicles.
- 2) Emergency service vehicle access circulation will be improved through the provision of a turnaround area on site large enough to fit fire trucks.
- 3) Bus parking and loading currently occurs on the highway shoulder. The proposed parking and circulation plan provides a separate area on site for bus loading, parking and circulation which will result in improved highway operations.

2. Water

Preliminary discussions with the Department of Water Supply indicate that County Services are available to serve the proposed project. Appropriate water system improvements will also be constructed to address fire flow requirements. The project is not expected to have a significant impact upon the water source, storage and transmission system.

3. Wastewater

The site is not serviced by County wastewater treatment system and is considered a critical wastewater disposal area. Thus, septic tanks will be utilized for wastewater disposal in accordance with State Department of Health

Rules and Regulations (Chapter 62, Hawaii Administrative Rules). An engineering report for a septic system for the proposed project was approved on December 21, 1992 by the Department of Health. The applicant is ascertaining whether this approval is still valid. In any event, the applicant will comply with the Department of Health's regulations concerning wastewater disposal.

4. Drainage

It has been calculated that after development, 14.38 cfs would be discharged, resulting in a net increase in runoff of 3.68 cfs. **See Appendix D for hydrologic calculations.** It is proposed to maintain the current quantity of storm runoff to the southern gulch and divert the remainder to the northern gulch. A series of trench drains and inlets will collect the runoff in parking areas and pipe it under the new lodge building addition to a detention reservoir at the northwest corner of the project site. The reservoir will be sized to accommodate runoff from the 50-year 1-hour storm. An outlet pipe in the northwest corner of the reservoir will slowly release the runoff into the northern gulch so that peak flow released will not exceed the current peak flow. A spillway will also be provided to protect the reservoir from runoffs exceeding the design storm level. As such, it is anticipated that the proposed development will have negligible impacts on the existing hydrology, and consequently, will not adversely affect the adjoining downstream properties.

IV. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES AND CONTROLS

A. STATE LAND USE DISTRICTS

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes the four major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", "Agricultural" and "Conservation". The subject parcel is within the "Urban" District. The proposed action involves the use of the property for a lodge and restaurant which is compatible with the "Urban" designation.

B. MAUI COUNTY GENERAL PLAN

The Maui County General Plan (1990 Update) sets forth broad objectives and policies to help guide the long-range development of the County. As stated in the Maui County Charter, "The purpose of the General Plan is to recognize and state the major problems and opportunities concerning the needs and the development of the County and the social, economic and environmental effects of such development and set forth the desired sequence, patterns and characteristics of future development."

The proposed action is in keeping with the following General Plan objectives and policies:

Objective:

To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.

Policy:

Formulate a directed land use growth strategy which will encourage the redevelopment and infill of existing communities allowing for mixed land uses, where appropriate.

C. MAKAWAO-PUKALANI-KULA COMMUNITY PLAN

The subject parcel is located in the Makawao-Pukalani-Kula Community Plan region which is one of nine Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains recommendations and standards which guide the sequencing, patterns and characteristics of future development in the region.

The proposed project site is designated "Project District 1 (Kula Lodge)" by the Makawao-Pukalani-Kula Community Plan Land Use Map (1987 version) .

The Project District 1 designation in the Makawao-Pukalani-Kula Community Plan is intended to provide for the proper development of the area for retreat resort use. The plan states:

"This project district should primarily contain retreat accommodations that provide a restful and quiet experience in an isolated location. Existing restaurant and hotel use shall be allowed along with other limited expansion for other hotel related uses. Open space and landscaping are to be common and integral functions of the project district development plan." (pg. 26)

The proposed amendments to the Makawao-Pukalani-Kula Community Plan include revisions to specific guidelines within the project district to allow the proposed project to better meet the objectives of Project District 1.

V. FINDINGS AND CONCLUSIONS

The proposed project is not anticipated to have significant adverse impacts upon surrounding properties. The Kula Lodge Project District Ordinance (Chapter 19.75, MCC) establishes setback and landscape requirements in order to minimize impacts to these neighboring properties. A majority of the perimeter of the property has landscape planting in place which acts as a visual and noise buffer for surrounding properties. The landscape improvements were planted in 1988 to mitigate potential visual impacts from surrounding properties.

The proposed project will involve earthwork and building construction activities. In the short-term, these activities may generate nuisances normally associated with construction activities. All construction activities are anticipated to be limited to normal daylight working hours. Impacts generated from construction activities are not considered adverse.

From a long-term perspective, the proposed project is not anticipated to result in adverse environmental impacts. The site is not within any area designated by the U.S. Federal Emergency Management Agency, Federal Insurance Administration, as a floodway area. There are no rare, endangered or threatened species of flora or fauna found within the project site. It is anticipated that the project will have "no effect" on significant historic sites.

The project will aid the long-term economic vitality of the region by providing employment opportunities at the restaurant as well as at the lodge. However, the increase in the level of employees will not have a significant impact upon local population levels. Public service needs such as police, medical facilities and schools will not be adversely impacted by the project. Impacts upon roadways, water, wastewater, drainage, and other infrastructure systems are not considered significant.

In light of the foregoing findings, it is concluded that the proposed action will not result in any significant impacts.

**VI. GOVERNMENT AGENCIES CONTACTED DURING THE REVIEW OF
THE DRAFT ENVIRONMENTAL ASSESSMENT**

See Appendix E for copies of the comment and response letters.

County of Maui

- Planning Department
- Department of Water Supply
- Department of Public Works and Waste Management
- Department of Fire Control

State of Hawaii

- Department of Land and Natural Resources
 - Division of Historic Preservation
 - Division of Water and Land Development
- Department of Health
- Office of Hawaii Affairs
- Department of Transportation

United States Government

- Department of Agriculture
 - Natural Resources Conservation Service

Other

- Maui Electric Company

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

FIGURES

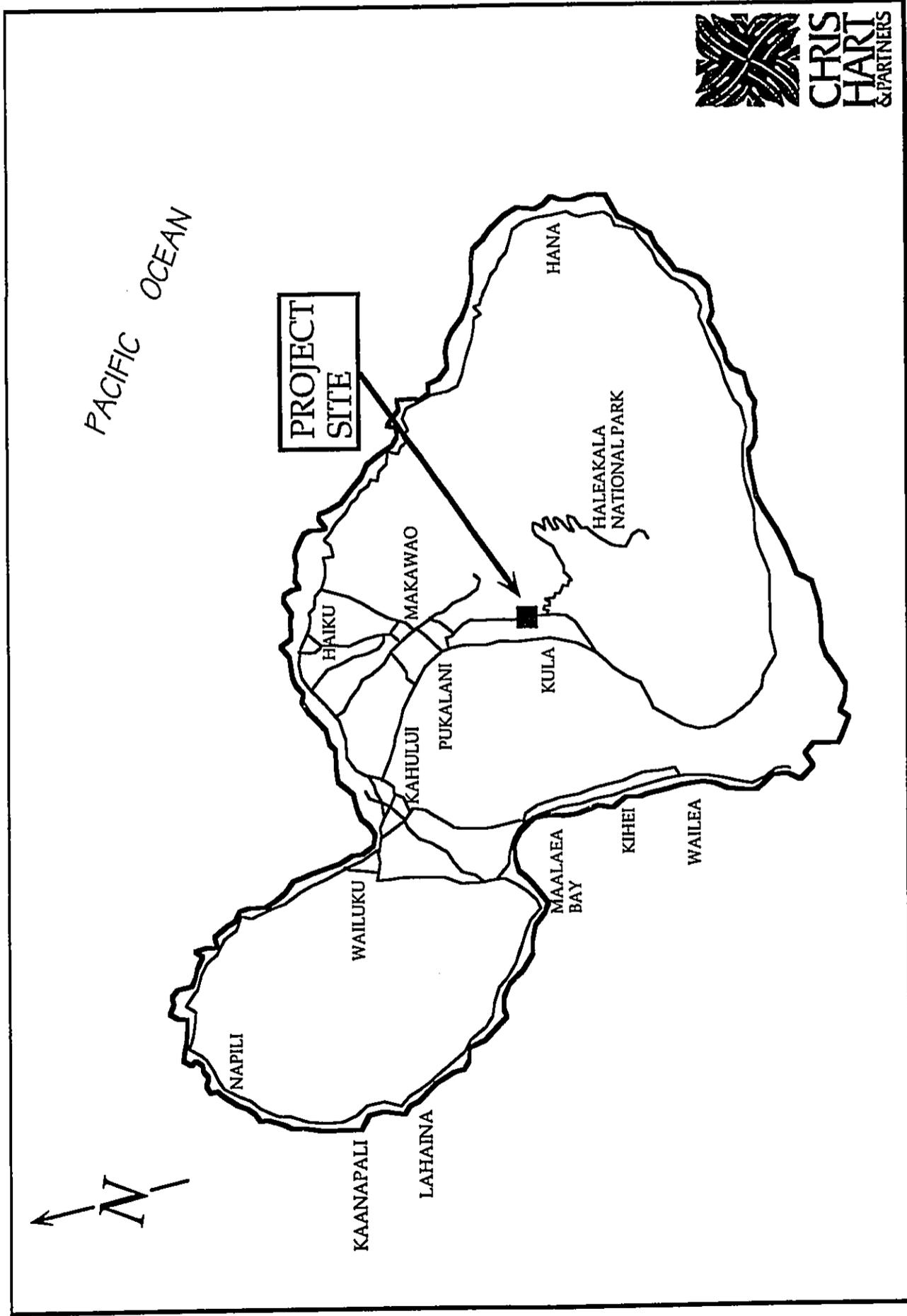
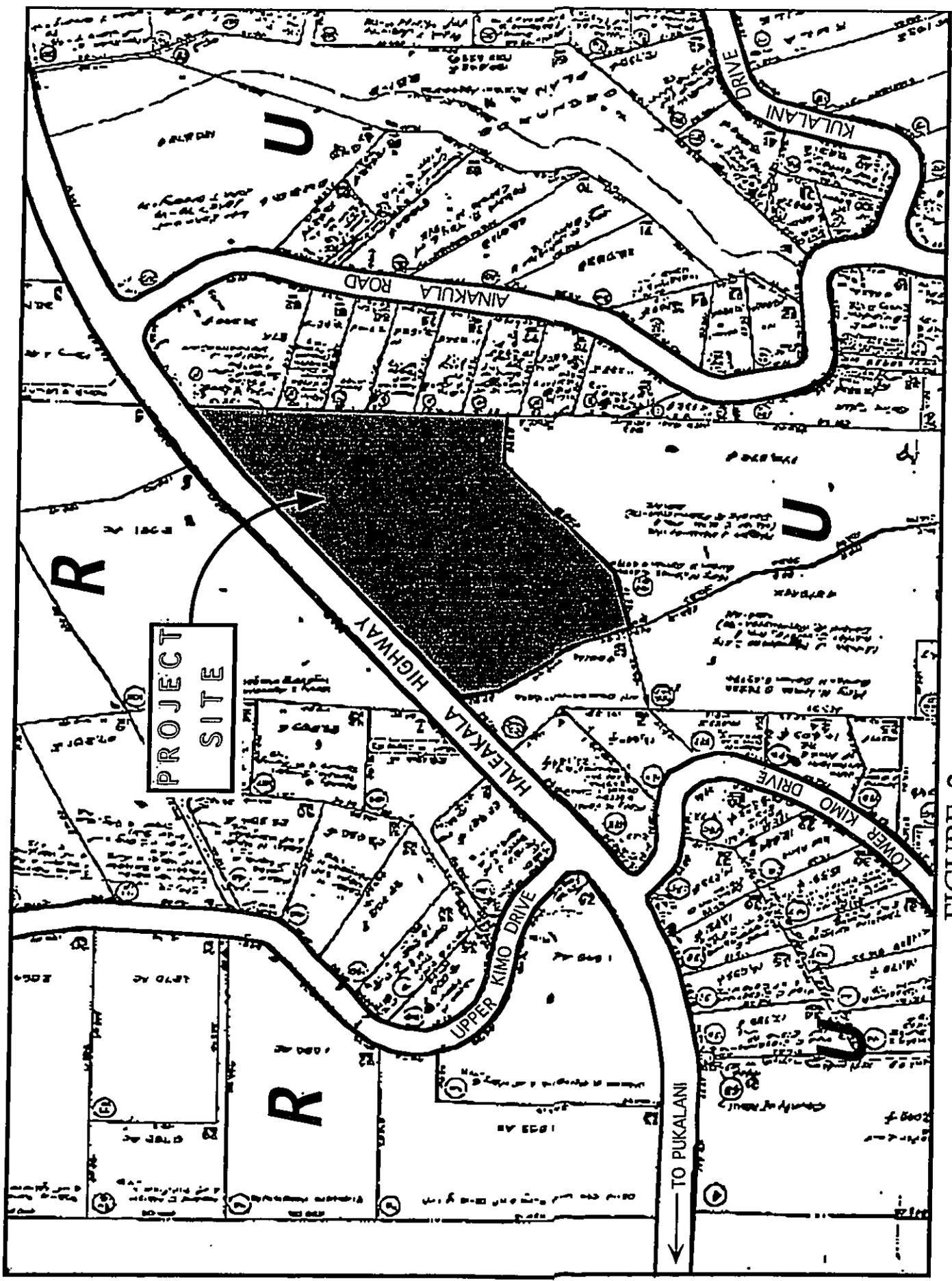


FIGURE 1 - REGIONAL LOCATION MAP
Kula Lodge & Restaurant

DOCUMENT CAPTURED AS RECEIVED



APPROXIMATE SCALE
1" = 200'
U = URBAN
R = RURAL

FIGURE 2
PROJECT LOCATION MAP
AND STATE LAND USE DESIGNATION

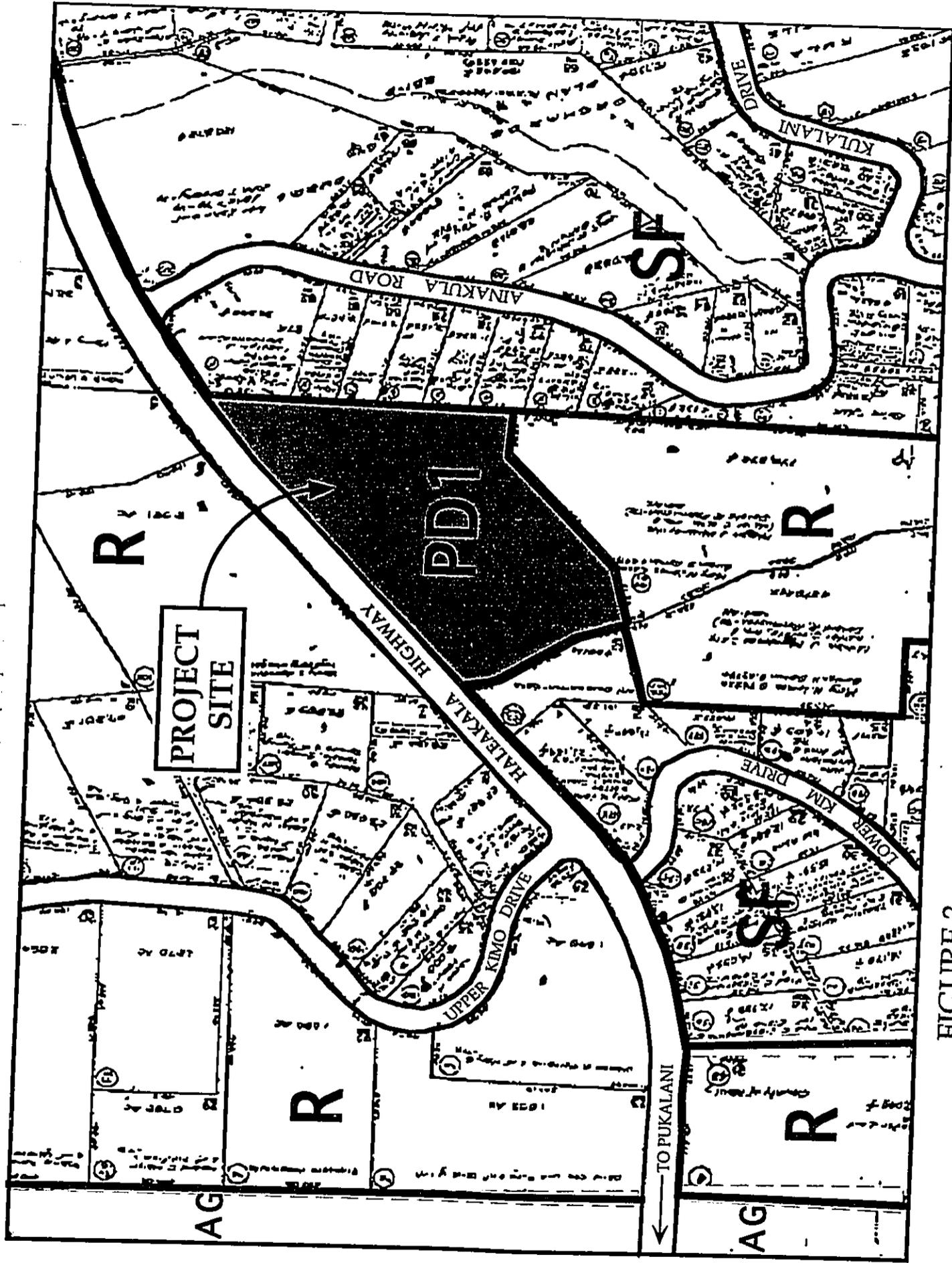


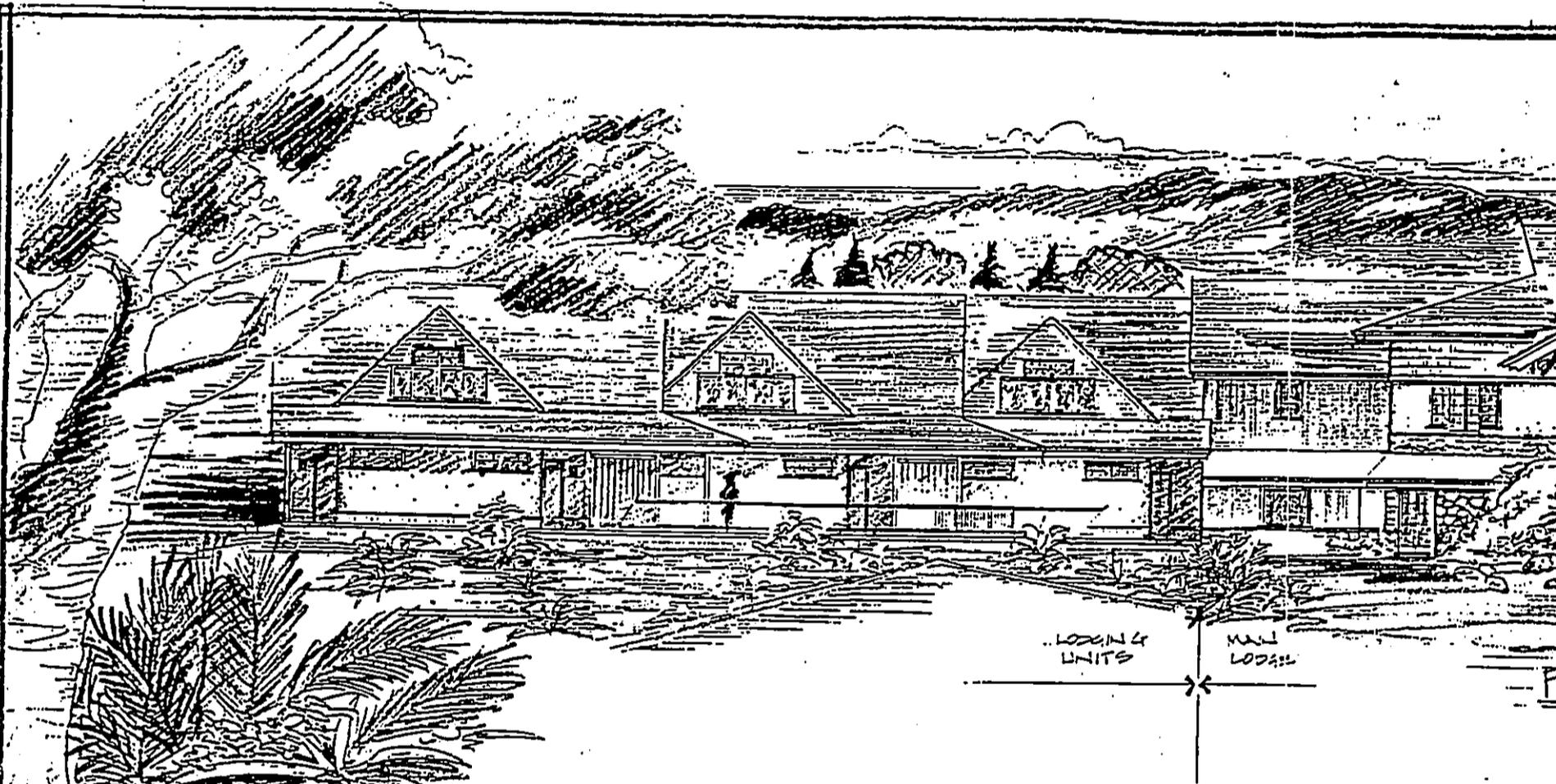
FIGURE 3
COMMUNITY PLAN DESIGNATIONS

R = RURAL
SF = SINGLE FAMILY
AG = AGRICULTURE
PDI = PROJECT DISTRICT

APPROXIMATE SCALE
1" = 200'

N

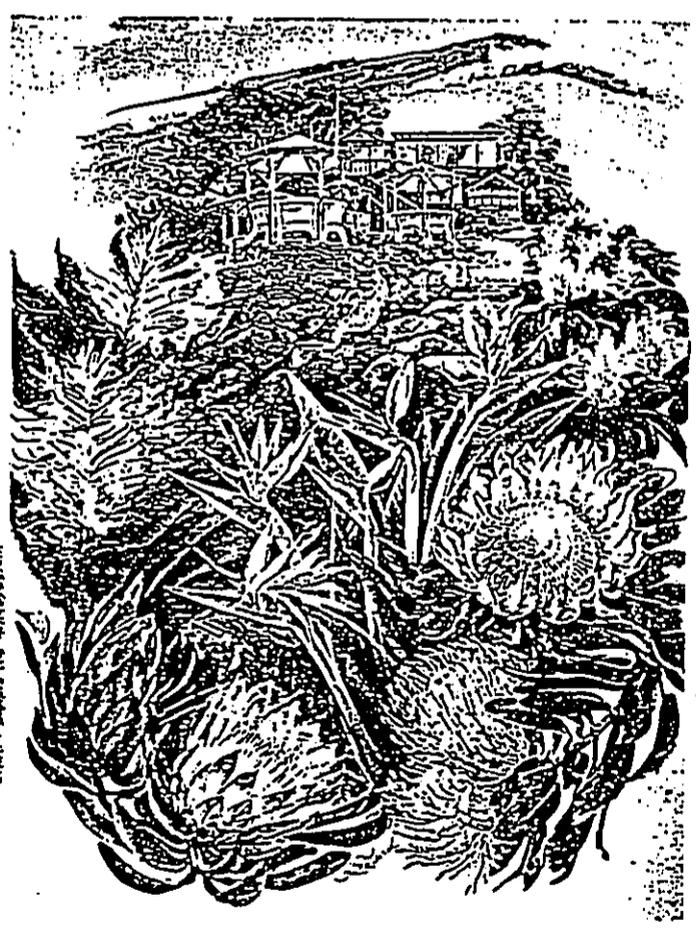
DOCUMENT CAPTURED AS RECEIVED



... LODGING
UNITS

MAIN
LODGE

RENOV.

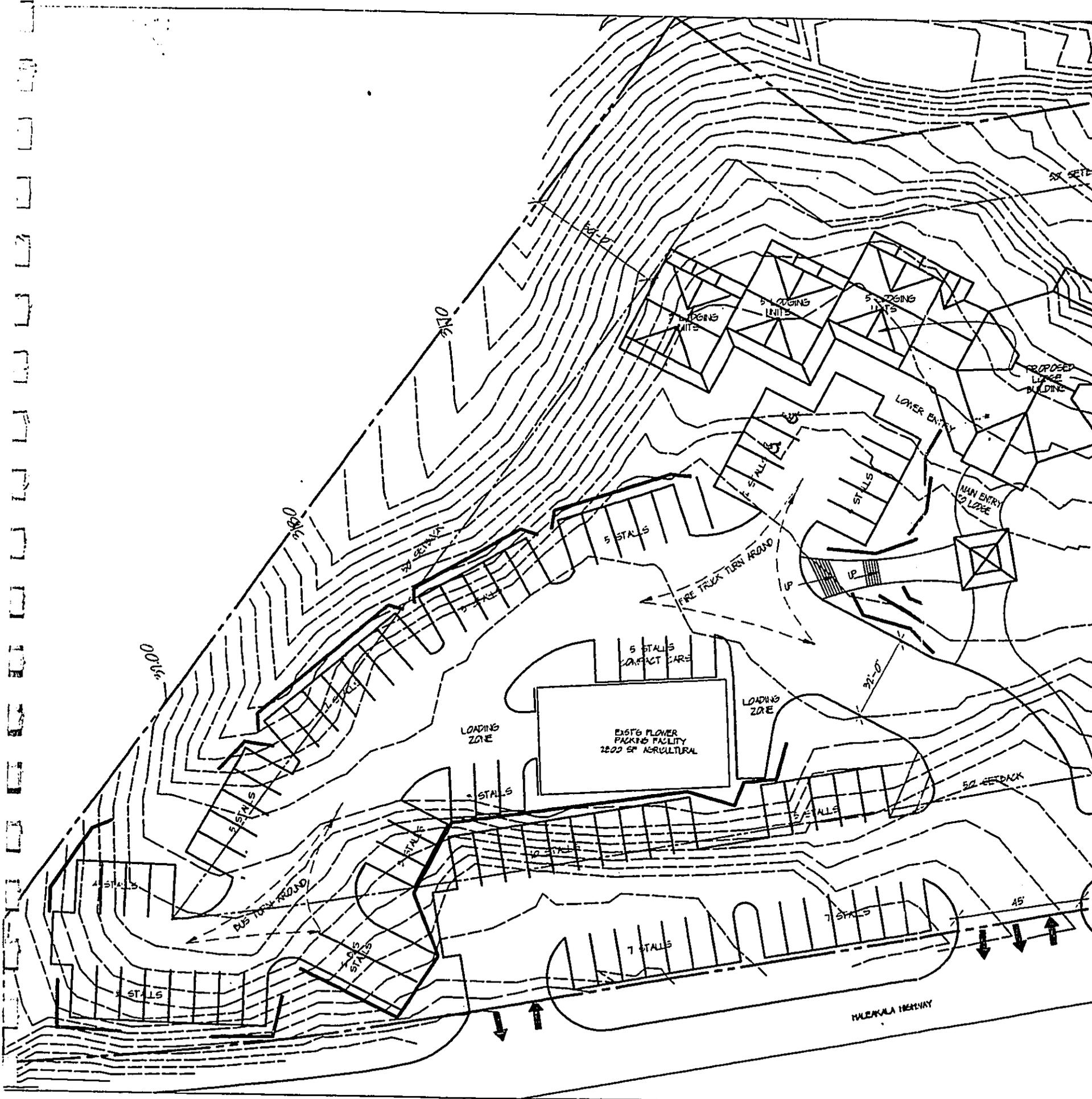


Charles DeWitt

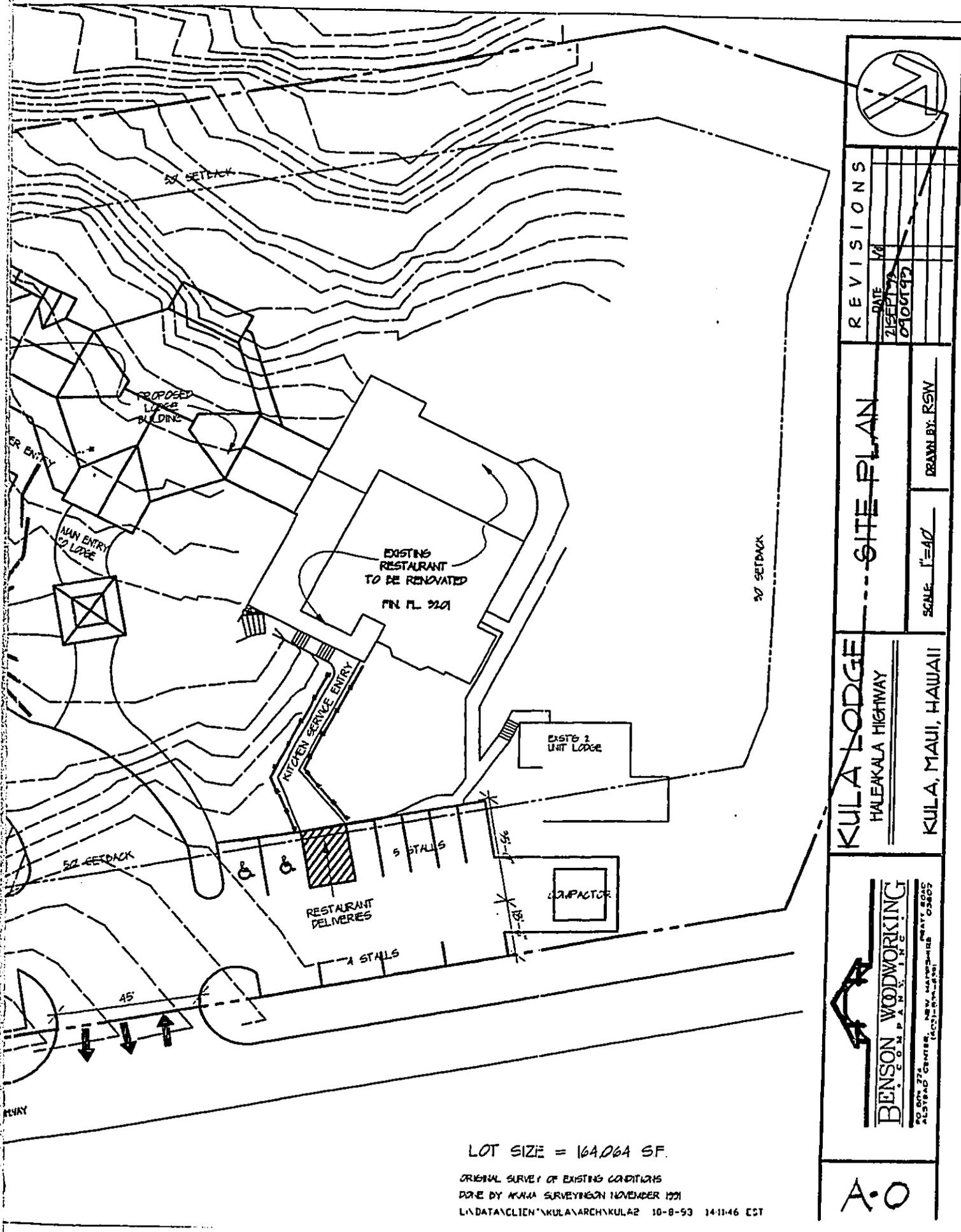


ON THE SLOPE

DOCUMENT CAPTURED AS RECEIVED



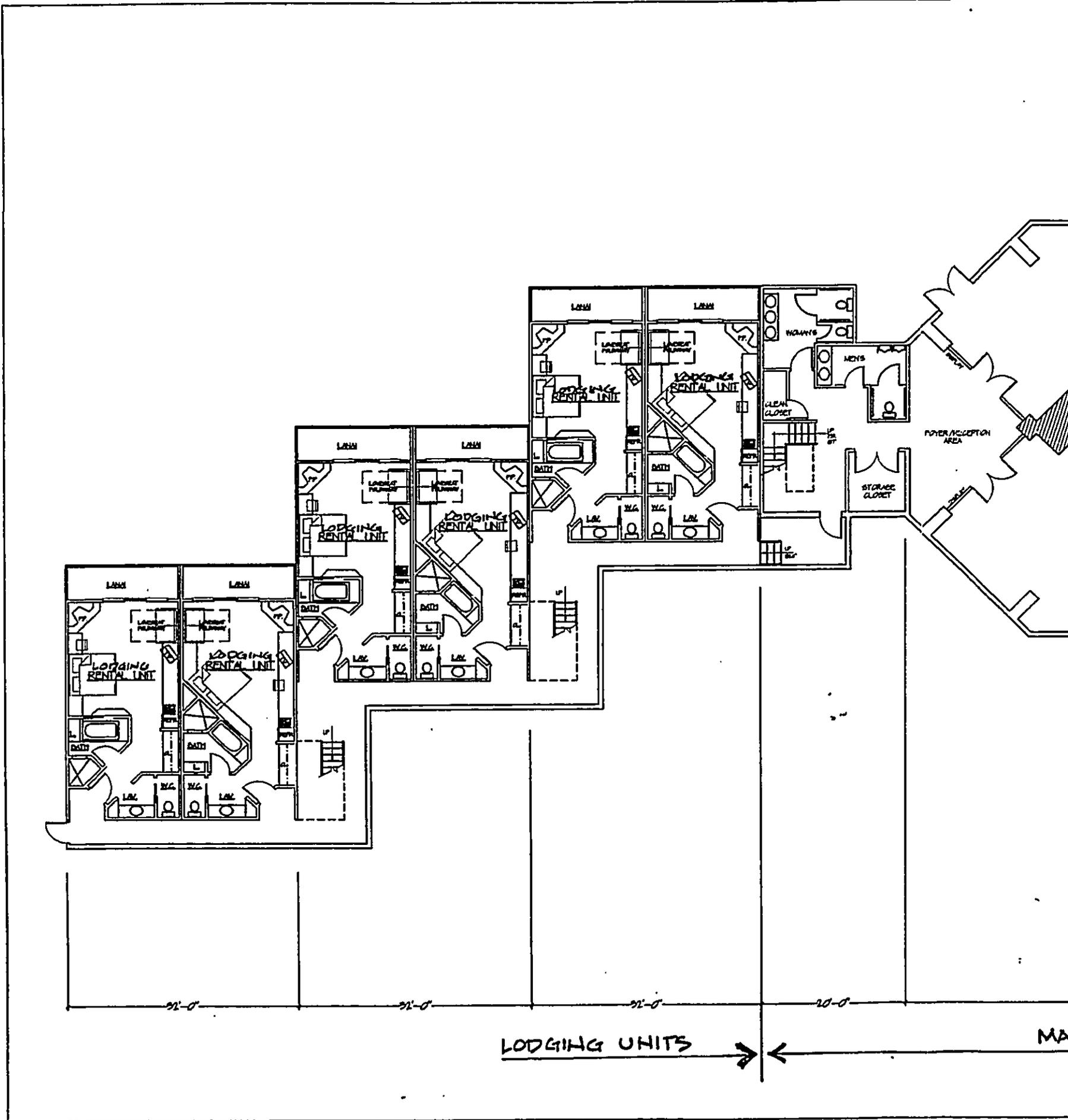
DOCUMENT CAPTURED AS RECEIVED



 BENSON WOODWORKING COMPANY, INC. PO BOX 274 ALSTEAD CENTER, NEW HAVEN, CT 06455 (203) 874-4361	KULA LODGE HALEAKALA HIGHWAY KULA, MAUI, HAWAII		SCALE: 1"=40' DRAWN BY: RSW
	SITE PLAN		
REVISIONS			
DATE	BY	REVISION	
2/25/93	RSW	0100193	
A.O			

FIGURE 5

DOCUMENT CAPTURED AS RECEIVED



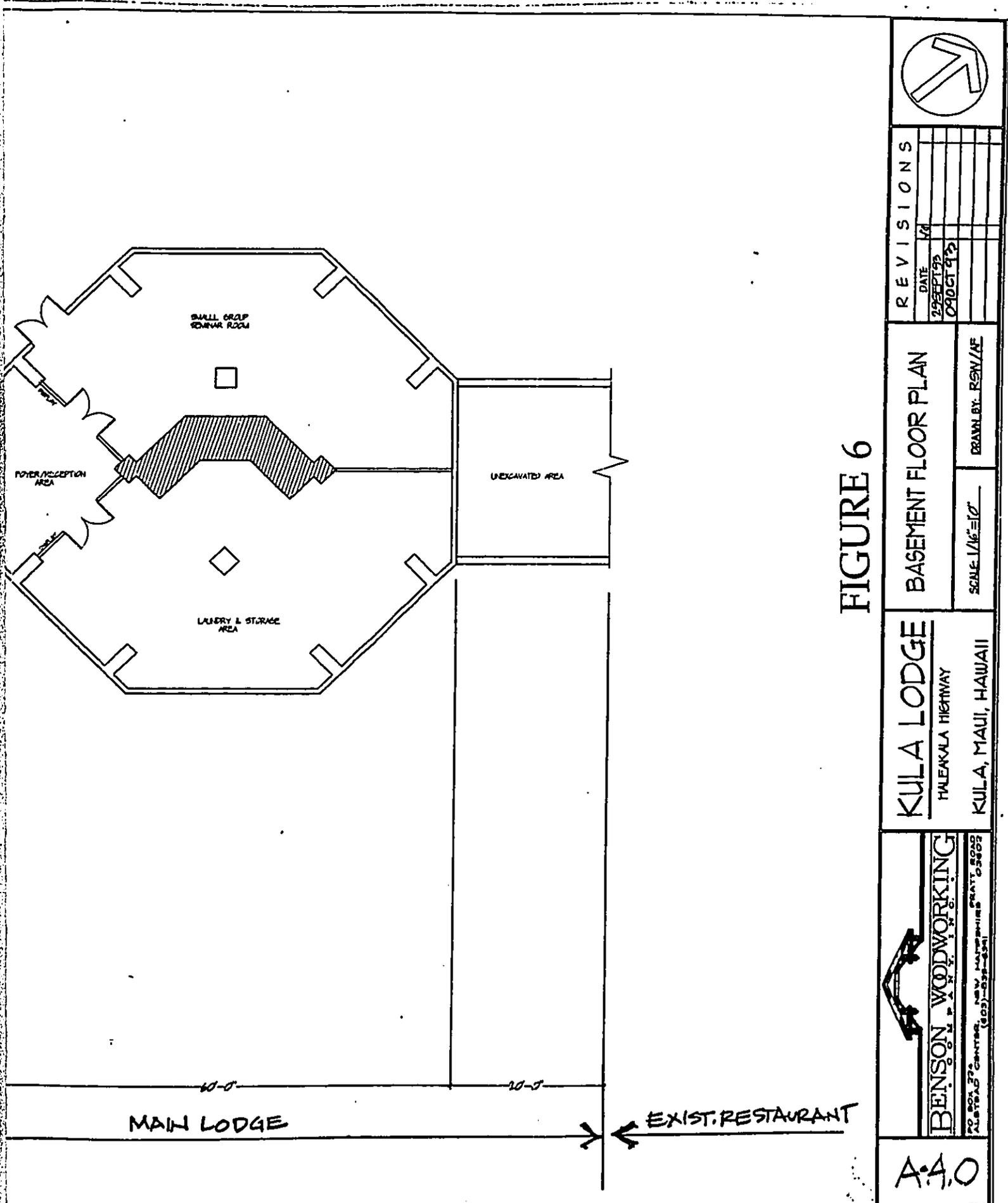
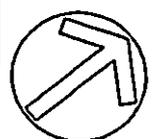
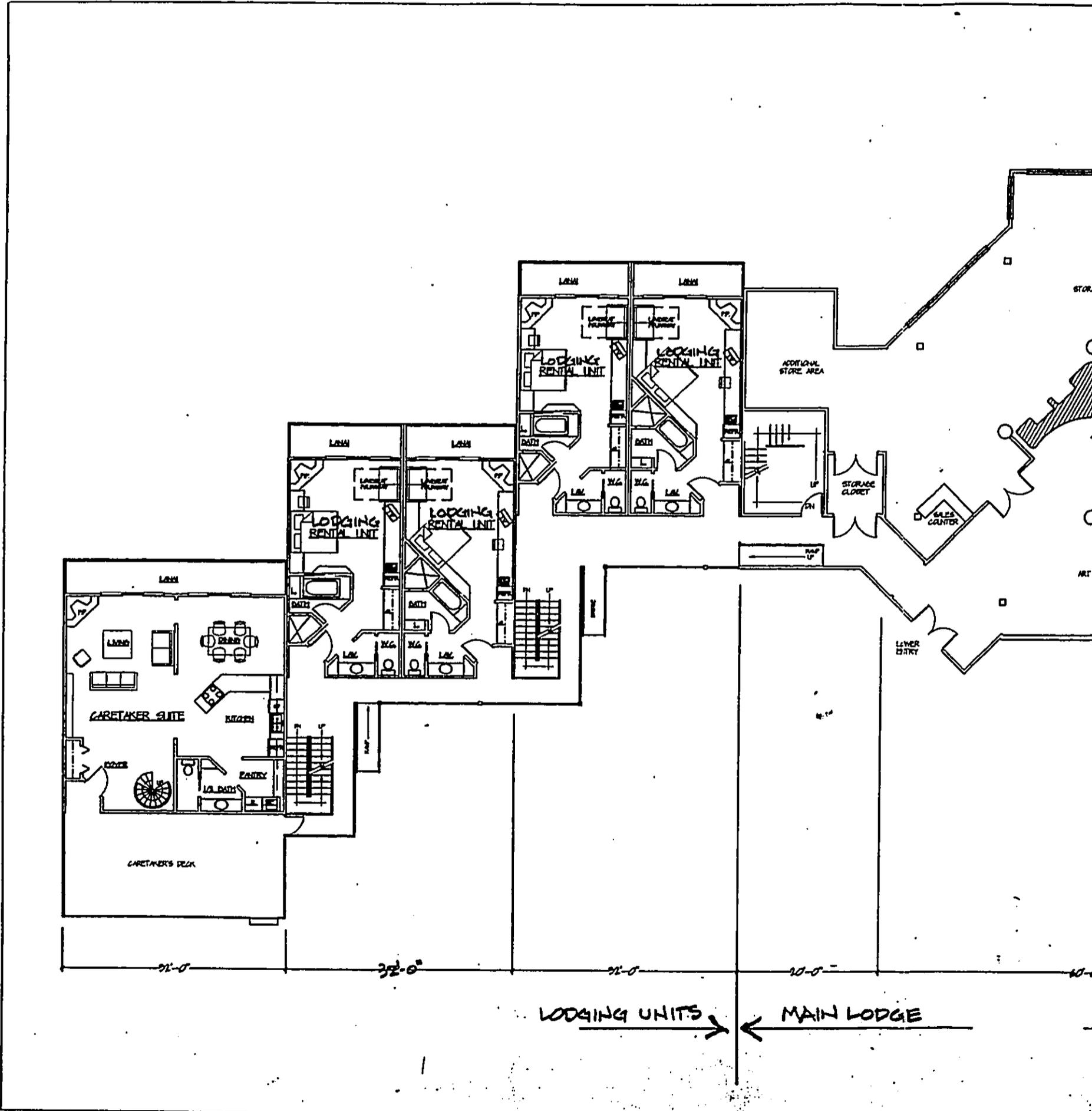
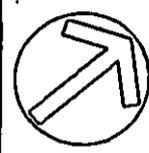


FIGURE 6

 BENSON WOODWORKING 2025 S. CENTRAL AVE., NEW HAWAIIANES, HI 96705 (808) 938-8341	KULA LODGE HALEKALA HIGHWAY KULA, MAUI, HAWAII		BASEMENT FLOOR PLAN SCALE: 1/16"=1'-0" DRAWN BY: RSW/AF		 REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>29 SEPT 93</td> <td></td> </tr> <tr> <td>2</td> <td>09 OCT 93</td> <td></td> </tr> </tbody> </table>	NO.	DATE	BY	1	29 SEPT 93		2	09 OCT 93	
	NO.	DATE	BY											
1	29 SEPT 93													
2	09 OCT 93													
A.A.O														





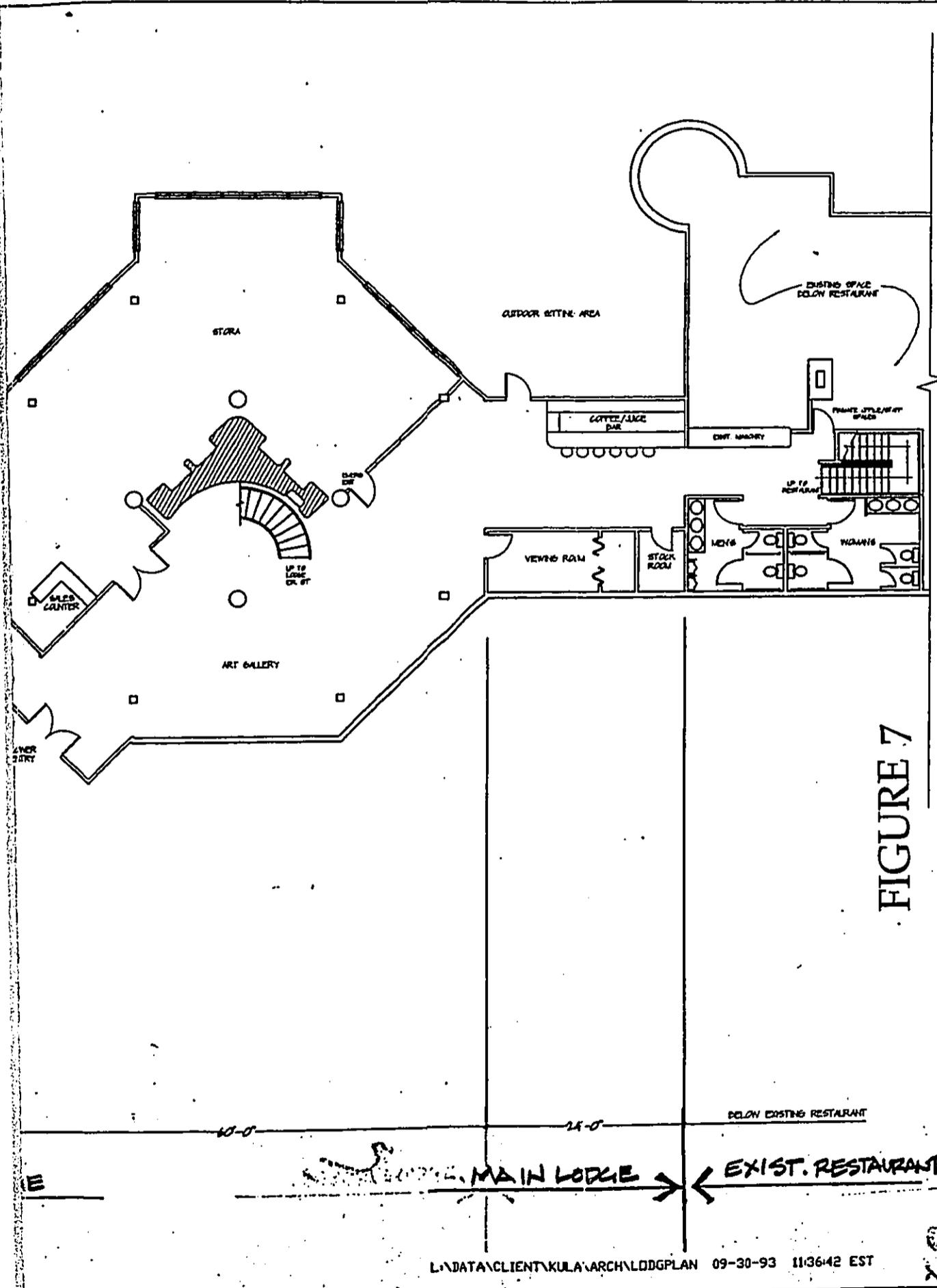
REVISIONS	
DATE	BY
2/28/99	CP/MS

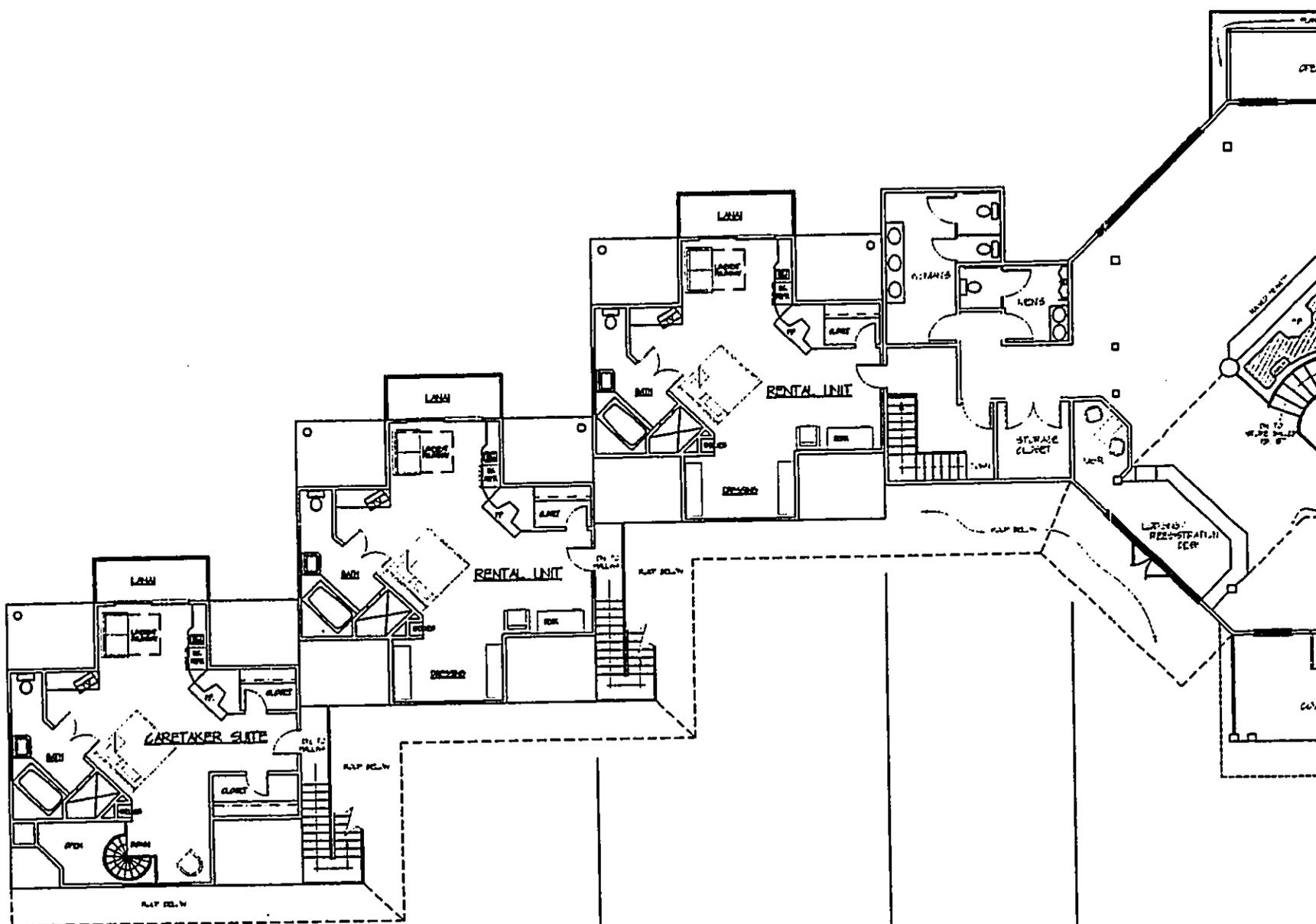
LOWER LEVEL PLAN
 SCALE: 1/8"=1'-0"
 DRAWN BY: RSN/AF

KULA LODGE
 HALEKULA HIGHWAY
 KULA, MAUI, HAWAII

BENSON WOODWORKING
 1001 W. HAWAIIAN BLVD. SUITE 200
 HONOLULU, HI 96813
 (808) 944-1234

A.A.I.





← MAIN LOBBY →
→ LODGING UNITS →

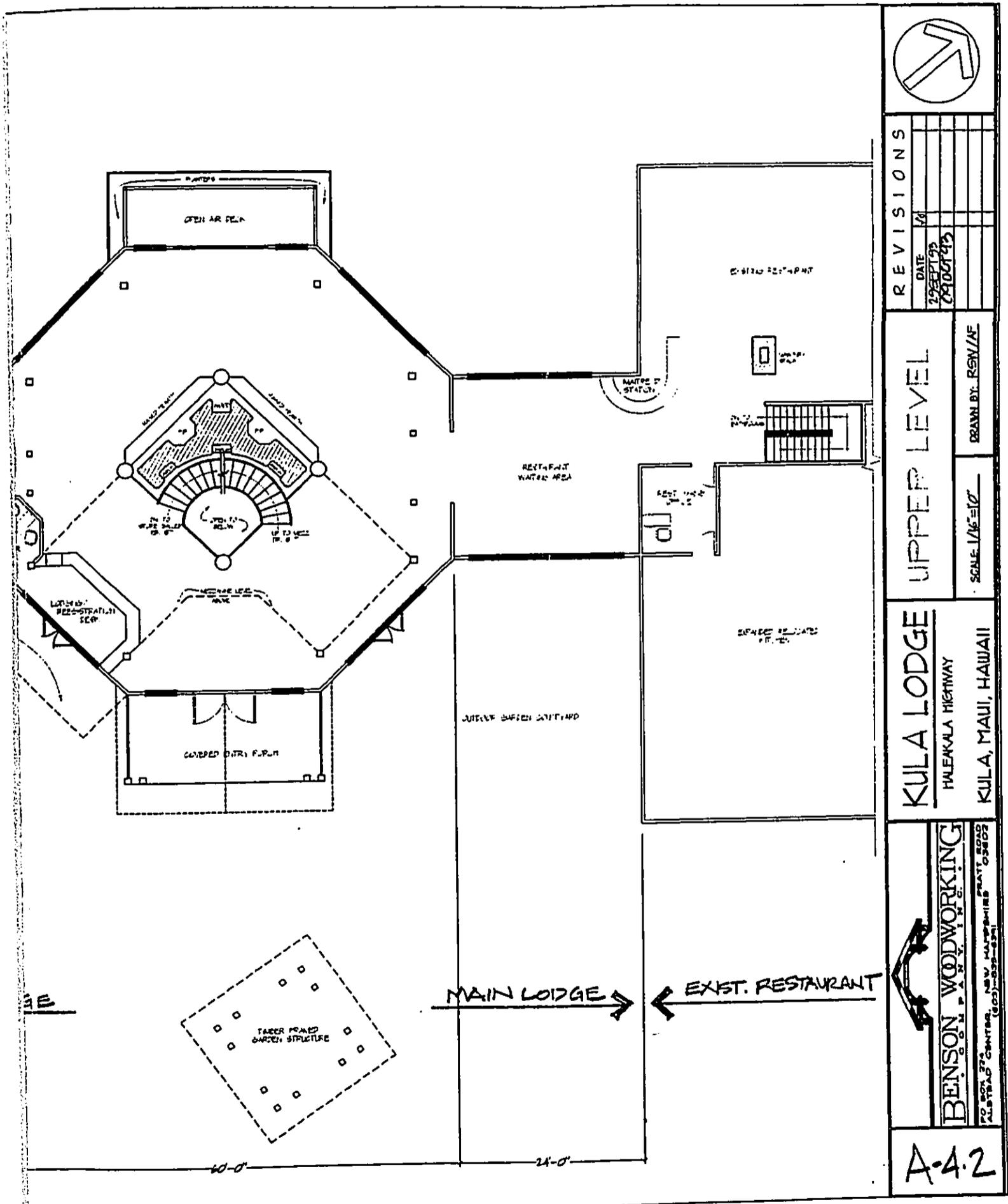
12'-0"

12'-0"

12'-0"

10'-0"

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



REVISIONS	
DATE	BY
1/10	RSV/AE
2/20/93	RSV/AE

UPPER LEVEL
 SCALE: 1/16" = 1'-0"
 DRAWN BY: RSV/AE

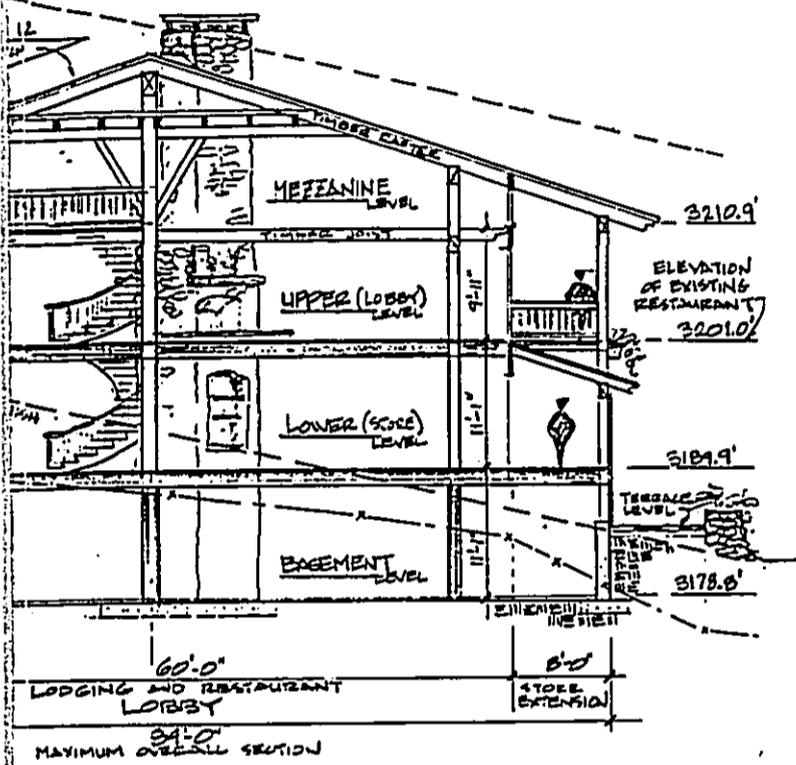
KULA LODGE
 HALEKULA HIGHWAY
 KULA, MAUI, HAWAII

BENSON WOODWORKING
 1000 W. P. A. N. E. I. N. G. I.
 P.O. BOX 277, CENTRAL, MAUI, HAWAII 96702
 (408) 242-8331

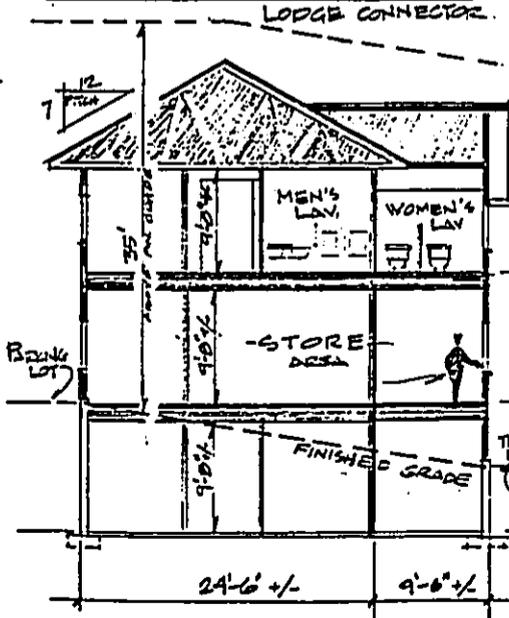
A-4.2

FIGURE 8

**SECTION A
CENTRAL LODGE**



**SECTION C
LODGE CONNECTOR**



**SECTION D
RESTAURANT CONNECTOR**

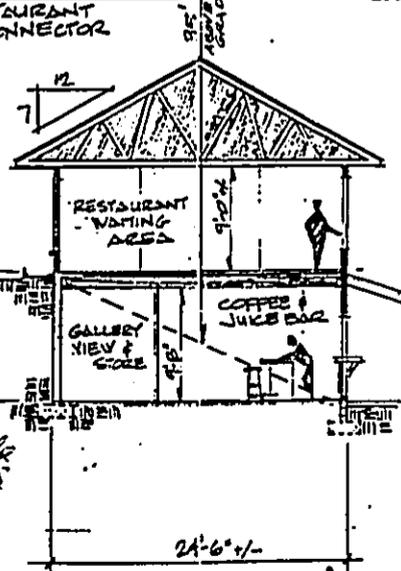
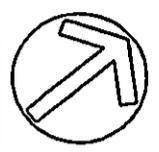


FIGURE 9

		REVISIONS	
		DATE	BY
KULA LODGE		BUILDING SECTIONS	
HALEAKALA HIGHWAY		SCALE 1/16"=1'-0"	
KULA, MAUI, HAWAII		DRAWN BY: RSN/AF	
		BENSON WOODWORKING	
		400 W. 37th CENTRE, NEW HARTFORD, MAINE 05055 (603) 888-8381	
A5.0			

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

REFERENCES

REFERENCES

Community Resources, Inc., Maui County Community Plan Update Program Socio-Economic Forecast Report, March 1992.

R.W. Beck, Solid Waste Characterization Study, December 1994.

State of Hawaii, Department of Business and Economic Development, Data Book, 1990.

U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, 1972.

University of Hawaii, Land Study Bureau, Detailed Land Classification - Island of Maui, L.S.B. Bulletin No.7, May 1967.

University of Hawaii, Department of Geography, Atlas of Hawaii, Second Edition, 1983.

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

APPENDIX - A
Proposed Amendments to
Makawao-Pukulani-Kula
Community Plan Project District 1

PROPOSED AMENDMENTS TO
MAKAWAO-PUKALANI-KULA COMMUNITY PLAN

PROJECT DISTRICT 1

The Project District 1 description is amended to read as follows (underlined material to be inserted, bracketed material to be deleted):

"PROJECT DISTRICT 1 (Kula Lodge) 3.7 acres

This project district is located on the west side of Haleakala Highway between Kimo Drive and Ainakula Road.

The objective of this project district is to provide for proper development of the area for retreat resort use.

This project district should primarily contain retreat accommodations that provide a restful and quiet experience in an isolated location. Existing restaurant and hotel use shall be allowed along with other limited expansion for other hotel related uses. Open space and landscaping are to be common and integral functions of the project district development plan.

Recommended guidelines within the project district are as follows:

Use:

Hotel: 4 units per acre

Commercial: [7,500] 16,000 square feet

Restaurant

Produce/Gift Shop

Art Gallery

Related hotel uses subject to approval by the County.

Agricultural operation:

[Produce market - 750 s.f.

Protea Shop - 650 s.f.

Protea co-op - 2,400 s.f.] Produce co-op/Farmers Market 2,800 s.f.

Height: [two stories] not to exceed thirty-five feet

Building setback: fifty feet from Haleakala Highway and south boundary
thirty feet from other property lines

[Maximum units/structure: 3]

Maximum hotel unit size: [500] 850 square feet"

APPENDIX - B

**Proposed Amendments to
Chapter 19.75
Makawao-Pukulani-Kula
Project District 1**

PROPOSED AMENDMENTS TO

Chapter 19.75

MAKAWAO-PUKALANI-KULA PROJECT
DISTRICT 1 (KULA)

Chapter 19.75, Maui County Code is amended to read as follows (underlined material is to be inserted, bracketed material is to be deleted):

"19.75.010 Purpose and intent.

The purpose and intent of the project district 1 at Kula, Maui, is to establish permissible land uses, appropriate standards of development and specific allocation of building area for hotel and commercial uses within the defined project district.

19.75.020 Lodge PD-MPK/1.

A. Permitted Uses. Within project district 1, for following uses shall be permitted.

1. Principal uses:
 - a. hotel;
 - b. restaurant;
 - c. produce co-op/farmers market; [and
 - d. produce market.]
 - ~~d. produce/gift shop; and~~
 - e. art gallery.

2. Accessory uses and structures which are clearly incidental to and customarily found in connection with the principal uses, including the brewing of beer for consumption within the restaurant and lodge.

B. Development requirements for the lodge district shall be:

1. Minimum lot area, three acres;
2. Minimum lot width, two hundred fifty feet;
3. Minimum building setback, fifty feet from both Haleakala Highway and the south boundary of the property, and thirty feet from other property lines;
4. Maximum hotel units, four units per acre prorated; and
- [5. Maximum hotel units per building, two units; and
- 6.]5. Maximum height, [two stories] not to exceed thirty-five feet.

C. Special Uses. The following uses are declared special uses in project district 1; provided that the cumulative square footage for each of these uses shall not exceed one thousand square feet and approval by a resolution by the Maui county council shall be obtained:

1. Accessory commercial uses providing services primarily for hotel guests.

D. Other Uses Prohibited. All uses which are not identified as permitted or special uses are prohibited in Makawao-Pukalani-Kula project district 1.

19.75.030 Land use allocations.

A. The following are established as maximum square footage's for various land uses within project district 1 at Kula, Maui:

1. Restaurant, [the] approximately [six thousand five hundred square foot] eight thousand four hundred and five feet within the existing structure and approximately two thousand five hundred fifty square feet of outside dining area;
2. Hotel (living area per unit), [five hundred eighty] eight hundred fifty square feet; with the exception of one caretaker's unit which shall not exceed [seven hundred fifty] two thousand fifteen square feet;
3. Produce co-op/farmers market, the approximately two thousand eight hundred square foot existing structure; [and]
4. [Produce market, one thousand three hundred fifty square feet.] Produce/Gift Shop, located within the Main Lodge, two thousand two hundred thirty square feet; and
5. Art Gallery, located within the Main Lodge, one thousand nine hundred ninety square feet.

19.75.040 General standards of development.

Any development within project district 1 at Kula, Maui, shall obtain the approval of the director of the planning department that the development complies with the following standards:

- A. Steep Slopes.
 1. Twelve to less the fifteen percent slope. Not more than forty percent of such area shall be developed, regraded, or stripped of vegetation, unless approved by the director of public works;
 2. Fifteen to less than thirty percent slope. No more than thirty percent of such areas shall be developed, regraded, or stripped of vegetation, unless approved by the director of public works;
 3. Thirty percent slope or more. No more than fifteen percent of such areas shall be developed, regraded or stripped of vegetation, unless approved by the director of public works; or
 4. Steep slopes are defined as lands where the inclination of the surface from the horizontal is twelve percent or greater.
- B. Other Resources. Areas of important natural, historical, archaeological, or cultural resources or unique physical features, not otherwise mentioned in this section, shall be identified, and provisions shall be outlined to preserve or improve said resource or feature.
- C. Design.
 1. At least twenty percent of the lot area of each development shall be in protected open space. This includes areas defined in this section but does not include roadways, streets and parking lots; and
 2. Each building and structure shall be designed by a registered architect to conform with the intent of the project district.

D. Infrastructure. The development shall not burden governmental agencies to provide substantial infrastructural improvements.

E. Landscape Planting.

1. Comprehensive landscaping of the entire development shall be provided, including along streets and in open spaces; and

2. Landscape planting shall be considered an integral requirement of the development which shall comply with the off-street parking and loading ordinance codified in Chapter 19.36, Maui County code, and which shall provide shade, spatial definition, environmental control, and visual and noise screening for the development.

F. Signage. A comprehensive signage program shall be designed for the total development area and defined to at least include sizes, format, conceptual design, color schemes, and landscaping.

G. Lighting. Lighting shall be established in a manner which does not adversely impact the surrounding area.

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

100

APPENDIX - C
Transportation Impact Analysis

Transportation Impact Analysis

**Kula Lodge
and Restaurant**

Kula, Maui, Hawaii

Prepared for:
Fred Romanchak
Kula Lodge and Restaurant
RR1, Box 475
Kula, Maui, Hawaii 96790
(808) 878-1535

Prepared by:
Kittelson & Associates, Inc.
610 S.W. Alder, Suite 700
Portland, Oregon 97205

Project Number: 1362.00

September 1994



Table of Contents

Section 1		
Executive Summary		1
Section 2		
Introduction		3
Section 3		
Existing Conditions		4
Section 4		
Traffic Impact Analysis		9
Section 5		
Conclusions and Recommendations		16
Section 6		
References		18
Appendix A		
Appendix B		

List of Figures

Figure 1 Site Vicinity Map	5
Figure 2 Existing Traffic Volumes	6
Figure 3 Proposed Site Plan	10
Figure 4 Existing-plus-Project Traffic Volumes	13

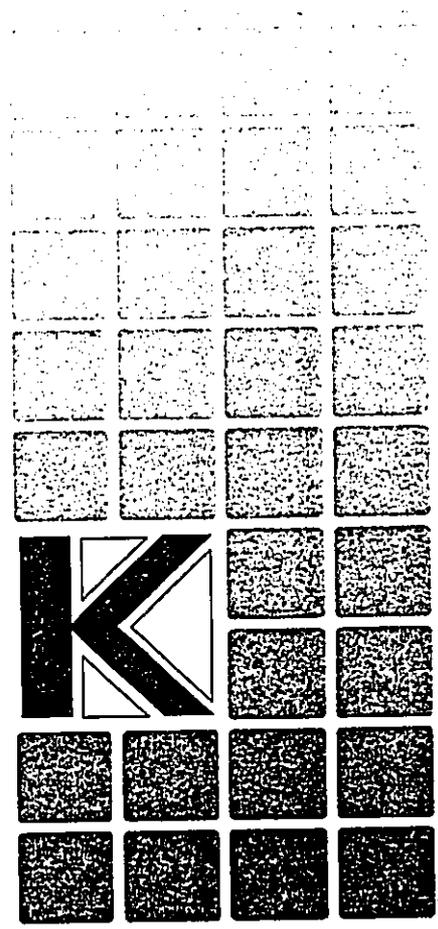
List of Tables

Table 1 Existing 1994 Level of Service	7
Table 2 Existing Sight Distance Measurements	8
Table 3 Future Site-Generated Traffic	12
Table 4 Future Level of Service	12
Table 5 Proposed Future Sight Distance Measurements	14

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

Section 1

Executive Summary



Executive Summary

Based on the results of our analysis of existing and existing-plus-project traffic conditions within the study area, it is concluded that the proposed Kula Lodge expansion will not have a negative affect traffic operations and safety within the study area. In fact, the proposed site plan should result in a marginal improvement due to the proposed access, parking and on-site circulation improvements. No off-site transportation improvements are recommended as a result of the proposed expansion. The following is a summary of the key analysis findings:

1. The proposed project will result in a negligible increase in traffic on Haleakala Highway, and will not affect the level of service at the site driveways. The proposed site plan modifications should improve both the traffic operational and safety characteristics of the highway due to improved access, parking and internal circulation for the site.
2. With respect to existing conditions, the existing driveways serving the Kula Lodge currently operate at an acceptable level of service (LOS "A") during both the morning and afternoon peak hours.
3. Adequate intersection sight distance is available at both driveways, based on the measured 85th percentile speed near the site.
4. The proposed Kula Lodge expansion is conservatively estimated to generate 5 additional trips at the site driveways during morning and afternoon peak hours.
5. The proposed expansion is anticipated to result in only a negligible increase in total traffic volumes on Haleakala Highway. It is noted that most of the Lodge's peak hour(s) business comes from traffic that is already passing by the site on its way to or from the Haleakala National Monument.
6. With the addition of site-generated traffic resulting from the expansion, the site driveways will continue to operate at LOS "A" during the peak hours.
7. As part of the proposed expansion, the existing northernmost driveway will be eliminated, the existing southernmost driveway will be widened, and one driveway will be added approximately 190 feet south of the existing southernmost driveway. All proposed site driveways will have clear sight lines that exceed 500 feet, which will allow traffic to safely ingress/egress the site.

8. The following improvements are anticipated to result from the proposed modifications to access, parking and circulation:
 - 1) The proposed expansion will greatly improve internal circulation as a result of a wider primary ingress/egress drive that will not be obstructed by on-street parking maneuvers or parked delivery vehicles. In addition, a separate loading area will be provided for delivery/service vehicles.
 - 2) Emergency service vehicle access and circulation will be improved through the provision of a turnaround area on site large enough to fit fire trucks.
 - 3) Bus parking and loading currently occurs on the highway shoulder. The proposed parking and circulation plan provides a separate area on site for bus loading, parking and circulation which will result in improved highway operations.
9. An examination of left-turn lane warrants indicated that an exclusive left-turn lane is not warranted at either site driveway.

Introduction

Project Description

Kula Lodge currently operates 5 lodging units (chalets) and a 6,395 square foot restaurant that seats approximately 120 customers. Amenities on-site include an art gallery and a flower shop, and a terraced garden for guests of the lodge. The owner proposes to expand its current site plan to include, an additional 10 lodging units for over-night accommodation, 10,785 square feet of lobby, basement, and mezzanine improvements, and 2,010 square feet of additional restaurant space. Other elements to be included in the expansion of the current lodge is more space for the gift shop, art gallery, garden entry, and outdoor patio. In total, the floor area of the lodge will be expanded from 14,865 s.f. to 39,785 s.f.

Scope of Report

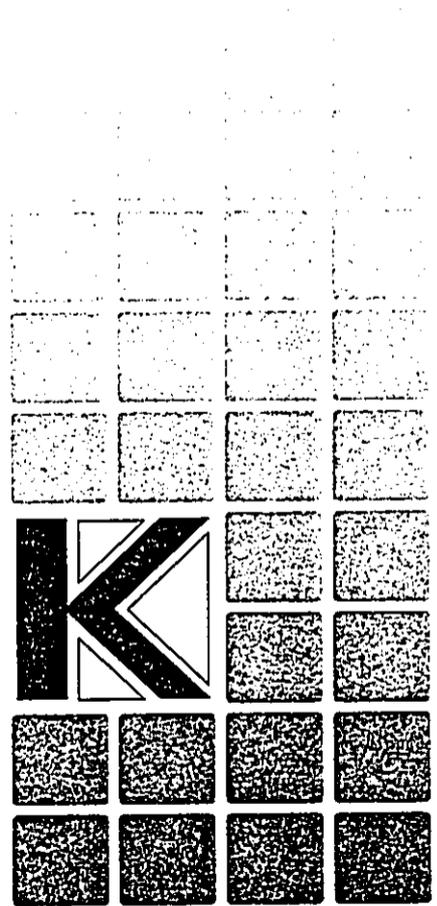
The purpose of this report is to assess traffic-related issues with respect to the expansion of the Kula Lodge and Restaurant. Specific issues addressed in this report include:

- Existing and existing-plus-project levels of service at the site driveways
- Intersection sight distance at existing and proposed site driveways
- Warrants for left-turn lanes
- Internal circulation and other site access issues

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

Section 3

Existing Conditions



Existing Conditions

Site Location

Kula Lodge is located on the Haleakala Highway (Highway 377), approximately 6 miles south of the Kula Highway (Highway 37), and approximately 2 miles north of Crater Road. Figure 1 illustrates the general location of Kula Lodge.

The 3.76 acre parcel, where the Kula Lodge is located, has been identified by the County of Maui as Tax Map Key No.: 2-3-22: 87, Upcountry, Maui, Hawaii, and is currently zoned MPK Project District I. The surrounding land uses are currently zoned for single family housing.

Major Transportation Facilities

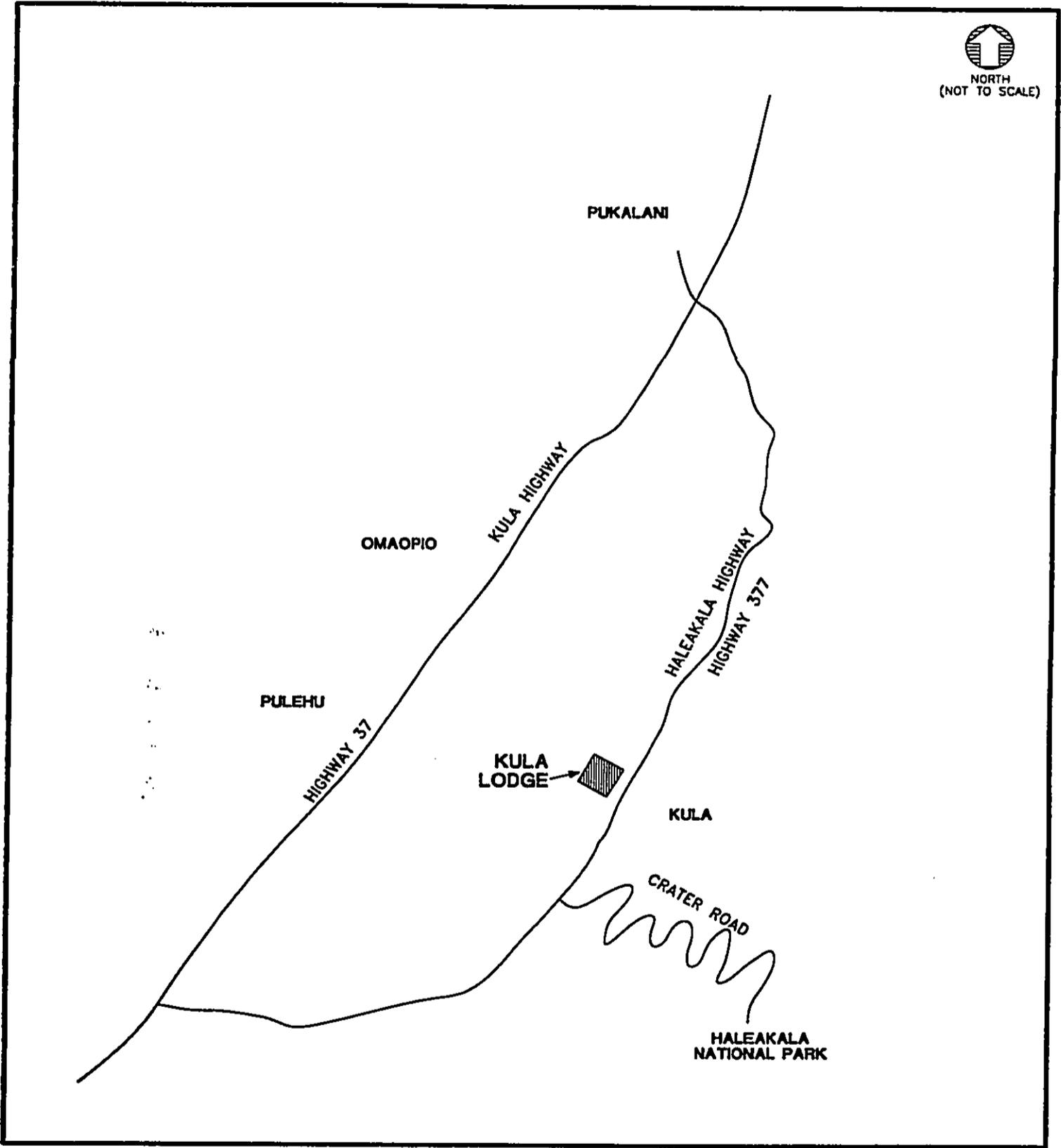
The Haleakala Highway is a two-lane undivided highway owned and maintained by Hawaii Department of Transportation. Haleakala Highway is the primary route to the Haleakala National Park and provides access for local residents of Kula. The posted speed limit near the site is 30 miles per hour.

Traffic Volumes and Peak Hour Operations

Current weekend and weekday peak hour traffic volumes for the study area intersections were obtained from manual turning movement counts conducted in September 1994 as part of this study.

Traffic volume data was collected during the morning and afternoon weekday and weekend peak hours during the week of September 12th 1994. The peak period of activity at the lodge centers around the breakfast (6:30-9:00 a.m.) and lunch service (11:30 to 2:00 p.m.). Not coincidentally, these time periods coincide with peak hour volumes on Haleakala Highway. Data collected at the site driveways was augmented with average daily traffic (ADT) volume data obtained from the Hawaii Department of Transportation (HIDOT) at the intersection of Haleakala Highway and Crater Road.

With respect to seasonal variations in traffic on Haleakala Highway, a review of traffic volume data taken at the main gate for the Haleakala Crater indicated that September is an average month with respect to traffic volumes on the highway, therefore no adjustments to the volumes were made. Figure 2 illustrates the existing peak hour traffic volumes at the site driveways.



SITE VICINITY

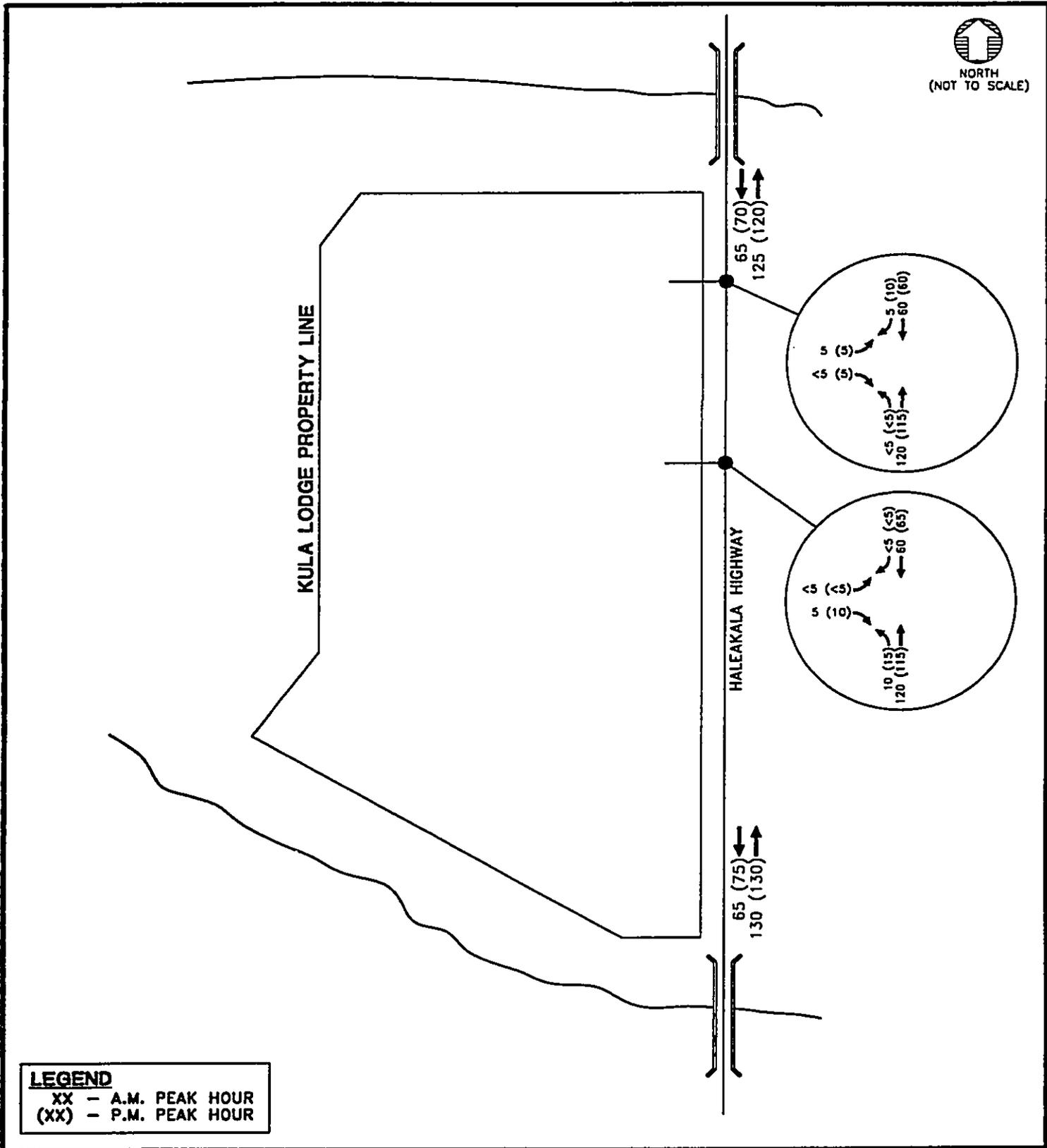
KULA LODGE
 KULA, MAUI, HAWAII
 SEPTEMBER 1994

FIGURE

1



1362F001



EXISTING MORNING AND AFTERNOON
 PEAK HOUR TRAFFIC VOLUMES

KULA LODGE KULA, MAUI, HAWAII SEPTEMBER 1994	FIGURE 2	
--	-------------	---

1362F002

Current Levels of Service

To assess the capacity and quality of traffic operations at the existing site access/driveways for the existing peak hour, an analysis was conducted to assess the current levels of service (LOS). This LOS analysis is based on the techniques described in the 1985 *Highway Capacity Manual* (1).

Level of Service is a concept developed by the transportation engineering profession to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. LOS is expressed as a letter grade that ranges from "A", indicating that vehicles will experience little, if any, delay, to "F", indicating that drivers will experience significant traffic congestion and delay. A description of the levels-of-service and the criteria used to determine them is presented in Appendix A. The appendix also includes a discussion of how LOS is measured and what is generally considered to be an acceptable range of LOS.

The levels-of-service for the existing unsignalized intersections are shown in Table 1. As shown in Table 1, both driveways currently operate at the highest possible level of service.

Table 1.
Existing 1994 Level of Service

Intersection	Two-Way Stopped Controlled Intersection Analyses	
	LOS	Reserve Capacity
Haleakala Highway/North Site D/W	A/A	727/730
Haleakala Highway/South Site D/W	A/A	722/727

Note: a.m. peak/p.m. peak

As indicated in Table 1, both site driveways are operating at the best possible level of service. The level of service results are consistent with field observations at the site driveways.

Intersection Sight Distance

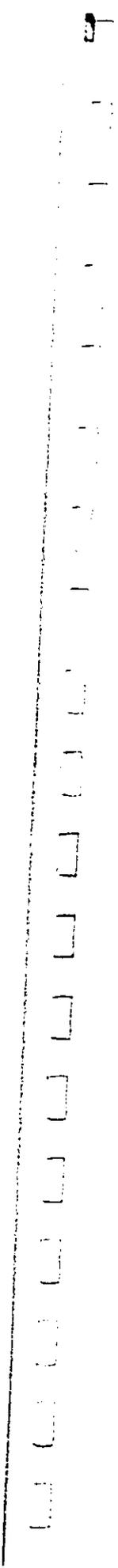
Intersection sight distance measurements were taken at the existing site driveways to determine whether adequate lines of sight were available for motorists to safely ingress/egress the site. Since sight distance requirements vary in relation to the speed of traffic on the major street, a spot speed study was conducted on Haleakala Highway near the site. The results of the study revealed an average travel speed in both the northbound and southbound directions of approximately 40 mph. The 85th-percentile speed in each direction was approximately 45 mph.

Although the posted speed in this section of roadway was 30 mph, the sight distance requirements were based on the 85th percentile speed of 45 mph. Based on a speed of 45 mph, the required intersection sight distance for the various turning movements are in the range of 450-500 feet. These distances are considered to be conservative in that they exceed the distances that correspond to the gaps in traffic most drivers require to enter a traffic stream at a stop-controlled intersection.

Sight distance measurements taken at the existing driveway locations are shown in Table 2. As indicated in the table, clear sight lines in excess of 600 feet are present at both the north and south driveways.

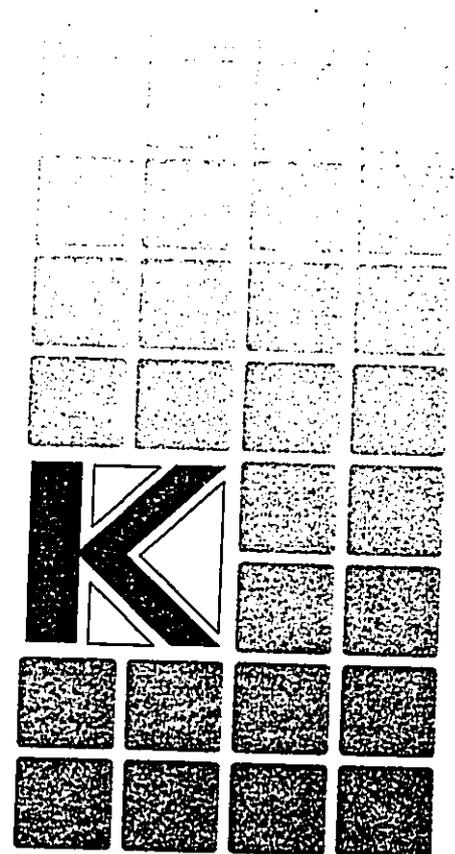
Table 2.
Existing Sight Distance Measurements

Location	Measured Sight Distance
South Driveway South Direction North Direction	> 600 ft. > 600 ft.
North Driveway South Direction North Direction	> 600 ft. > 600 ft.



Section 4

Traffic Impact Analysis



Traffic Impact Analysis

The weekend and weekday peak hour impacts of traffic generated by the proposed redevelopment were analyzed as follows:

- The placement and size of the development was confirmed.
- The site-generated traffic was determined based upon discussions with the Lodge owner, and empirical traffic volume data collected at the site.
- The site-generated traffic was added to the existing traffic volumes and assigned to the future site driveways using existing travel patterns.
- Level of service was calculated at the future driveways.
- Intersection Sight Distance was evaluated at the future driveway locations.
- On-site circulation was evaluated.
- Left-turn lane warrant analyses were performed at both driveway locations.

Proposed Renovation and Expansion Plans

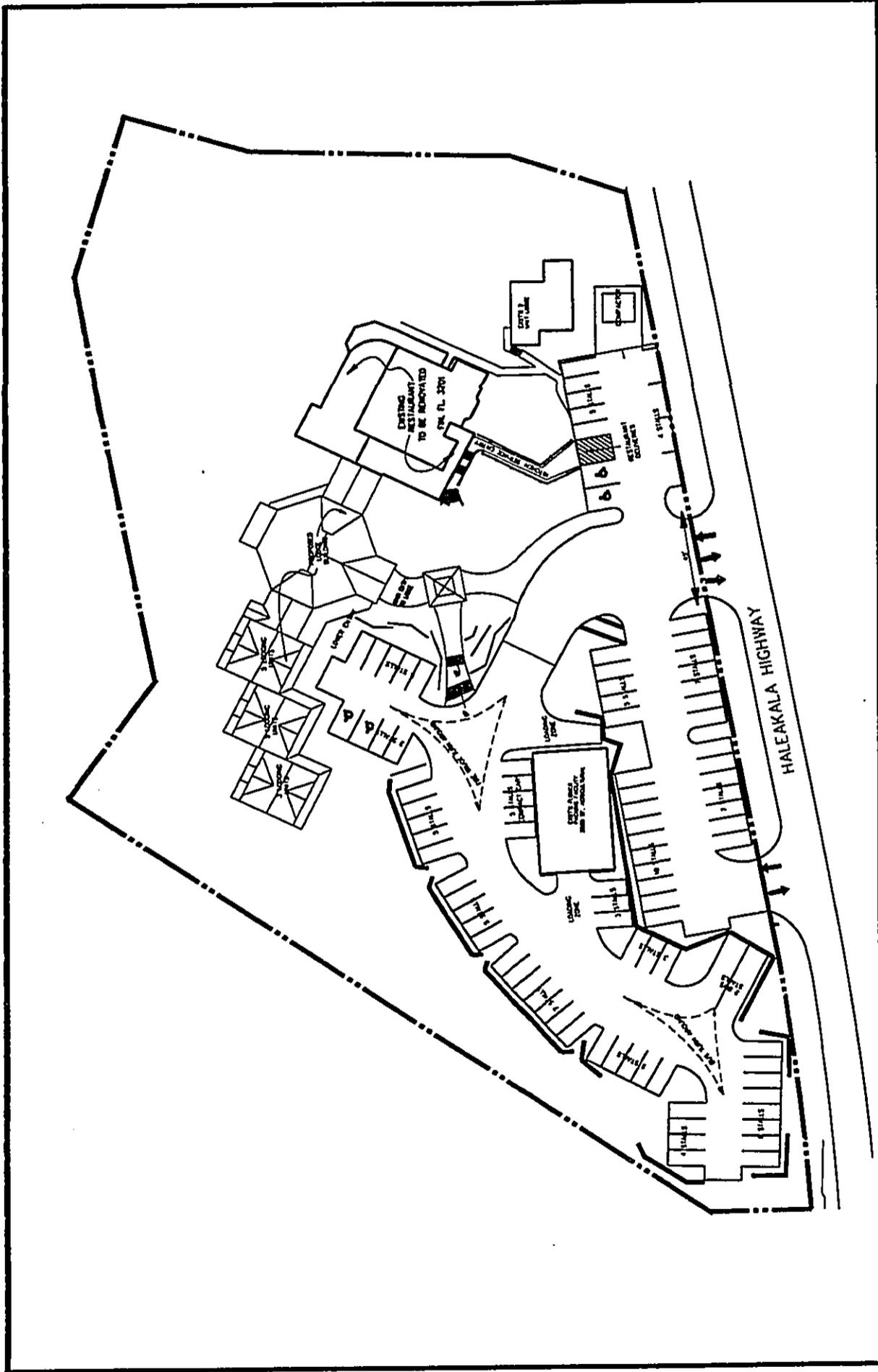
The proposed renovation plans calls for a new main lodge entry which will be constructed on the south side of the existing restaurant location. In addition, there will be spaced added to the art gallery, outdoor patio, and produce/gift shop. These additions are considered as amenities. It is recognized in this traffic study that these amenities are intended to increase the overall attractiveness of the Kula Lodge. The remaining lodge expansion includes the addition of 10 new lodge units and 2,010 added square feet of restaurant floor space. A detailed breakdown of existing and future square footage is included in Appendix B. Figure 3 illustrates the proposed site plan.

Trip Generation

This section outlines the methodology use to determine the existing and future trip generation characteristics for the lodge. Since the impact analysis relies heavily on the trip generation, special care was taken to ensure that reasonable "worst case" assumptions were use in developing the trip generation estimates for the proposed expansion.

Trip Generation for New Lodge units

The proposed expansion plans calls for the addition of 10 lodge units for a total of 15 lodge units. Based on empirical observations summarized in the standard reference manual *Trip Generation*, 5th Edition, published by the Institute of Transportation Engineers (Reference 2). Typical trip generation during the morning and afternoon peak hours is approximately 0.5 trips per occupied room. Based on this data, with the conservative assumption that 100 percent of the rooms are occupied, approximately 5 additional trips will be generated by the 10 new lodge units during both the morning and afternoon peak hours.



FUTURE SITE PLAN OF KULA LODGE

KULA LODGE
 KULA, MAUI, HAWAII
 SEPTEMBER 1994

FIGURE
 3



13621003

Trip Generation for Expanded Restaurant and Lodge

The proposed expansion plan calls for an additional 2,010 square feet of restaurant floor space and 10,785 new floor space for the main lodge entry and other uses. Based upon the data collected at site driveways, the restaurant/lodge currently generates approximately 4.7 and 7.0 trips per 1,000 square foot of restaurant floor space during the morning and afternoon peak hours, respectively. This trip generation rate was used to estimate the increase in trip generation as a result of the proposed 2,010 square foot restaurant expansion. To account for the increase in trip generation as a result of all other improved amenities on site (art gallery, gift and flower shop, lobby and mezzanine, etc.) it was conservatively estimated the improved amenities would attract 10 percent of the peak hour traffic volume that passes in front the site. Using these assumptions, it is estimated that the restaurant and lodge expansion will result in an additional * and * trips during the morning and evening peak hours, respectively.

Analysis of Trips Types

For the purpose of this traffic study, the Kula Lodge site-generated traffic can be divided into two basic types of trips:

1. ***Pass-by Trips***— These trips currently exist on the roadways that provide primary access to the facility, and are being made for some purpose other than visiting the facility (in this case a large proportion of the traffic is destined for the Haleakala National Monument). Pass-by trips do not result in any increase in background traffic volumes within the study area. In fact, the only impact of these pass-by trips occurs at the site driveways, where they become turning movements. Therefore, pass-by trips typically have no additional effect on the road system beyond the development's driveways.

It has be estimated that approximately 80 percent of all traffic generated by the Kula Lodge during the morning and afternoon peak hours can be classified as pass-by trips.

2. ***New Trips***— These trips would not have been made without the existence of the facility. Therefore, this is the only trip type that results in a net increase in the total number of trips made within the area.

Based upon the above methodologies, the estimated trip generation for the Kula Lodge is summarized in Table 3.

**Table 3.
Future Site-Generated Traffic**

Trip Generation	A.M. Peak Hour			P.M. Peak Hour		
	Total	In	Out	Total	In	Out
Expanded Kula Lodge	60	30	30	85	45	40
<i>less Existing Kula Lodge</i>	25	15	10	50	25	25
Net Increase at Site Driveways	35	15	20	35	20	15
<i>less Pass-by Trips</i>	30	15	15	30	15	15
Net New Trips on Haleakala Highway	5	0	5	5	5	0

As shown in Table 3, it is conservatively estimated that approximately 25 trips will be added to the site driveways, but only 5 net new trips will be added Haleakala Highway as a result of the Kula Lodge expansion.

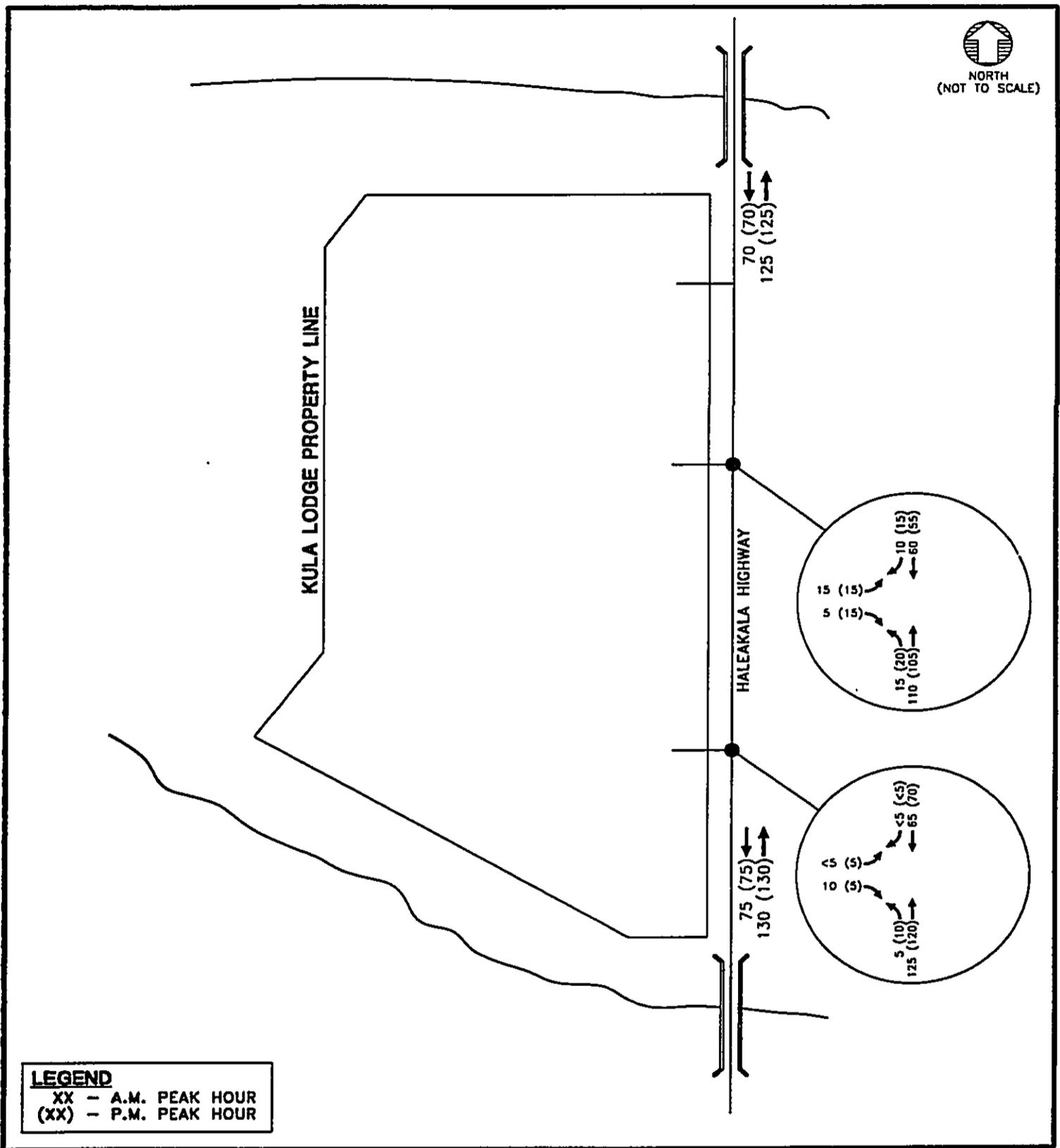
Existing-Plus-Project Levels of Service

Existing-Plus-Project peak hour traffic volumes at the site driveway were obtained by assigning the total site-generated traffic at the site driveways. The resulting existing-plus-project peak hour traffic volumes are shown in Figure 4. Using the traffic volumes shown in Figure 4, the peak hour level of service at the site driveways was calculated. Table 4 illustrates the level of service results. As shown in the table, both future driveways will continue to operate at level of service "A" after completion of the proposed expansion.

**Table 4.
Future Level of Service**

Intersection	Two-Way Stopped Controlled Intersection Analyses	
	LOS	Reserve Capacity
Haleakala Highway/North Site D/W	A/A	706/706
Haleakala Highway/South Site D/W	A/A	697/707

Note: a.m. peak/p.m. peak



EXISTING PLUS PROJECT
 TRAFFIC VOLUMES

KULA LODGE
 KULA, MAUI, HAWAII
 SEPTEMBER 1994

FIGURE
 4



1362F004

Intersection Sight Distance Assessment

As shown in Figure 3, the proposed site plan includes two access drives. The intersection sight distance was evaluated the proposed driveway locations using the same criteria used to evaluate the existing site driveways. Table 5 shows the results of this evaluation.

**Table 5.
Proposed Future Sight Distance Measurements**

Location	Distance Required	Distance Measured	Sight Distance Adequate?
South Driveway			
South Direction	450-500'	600'	Yes
North Direction	450-500'	>850'	Yes
North Driveway			
South Direction	450-500'	800'	Yes
North Direction	450-500'	>650'	Yes

On-Site Circulation

The on-site circulation of the Kula Lodge will be greatly improved as a result of this renovation and expansion. As shown in Figure 3 (site plan), there is ample automobile parking spaces located on the south end of the lot and additional parking spaces located down below the retained earth walls. The site plan provides an access throat at the primary entrance that will not be obstructed by parking maneuvers or service vehicles. This access design will ensure that vehicles can enter the site without delay, thus reducing the probability of back-ups onto the highway.

Other improvements that will result from the proposed site plan are as follows:

- 1) Emergency service vehicle access and circulation will be improved through the provision of a turnaround area on site large enough to fit fire trucks.
- 2) Bus parking and loading currently occurs on the highway shoulder. The proposed parking and circulation plan provides a separate area on site for bus loading, parking and circulation which will result in improved highway operations.

- 3) The primary access drive has sufficient width to accommodate wide turns made by large trucks and buses.
- 4) A separate area on-site is provided for service delivery vehicles.

Exclusive Left-Turn Lane Warrants

As part of this study a left-turn lane warrant analysis was conducted using the procedure provided in Highway Research Record No. 211, entitled *Aspects of Traffic Control Devices*, referred to by the American Association of State Highway Transportation Officials (AASHTO) (Reference 3). The AASHTO-recommended procedure is based on the percentage of left-turning volumes in the subject approach volume, the total opposing volume, and the prevailing speed on the major street. This procedure is applicable only to major street traffic. The results of this analysis showed that warrants for a left-turn lane are not met at either site driveway. This result was consistent with field observations which revealed showed no queuing at the access drives and little, if any delay to through vehicles on the highway.

Conclusions and Recommendations

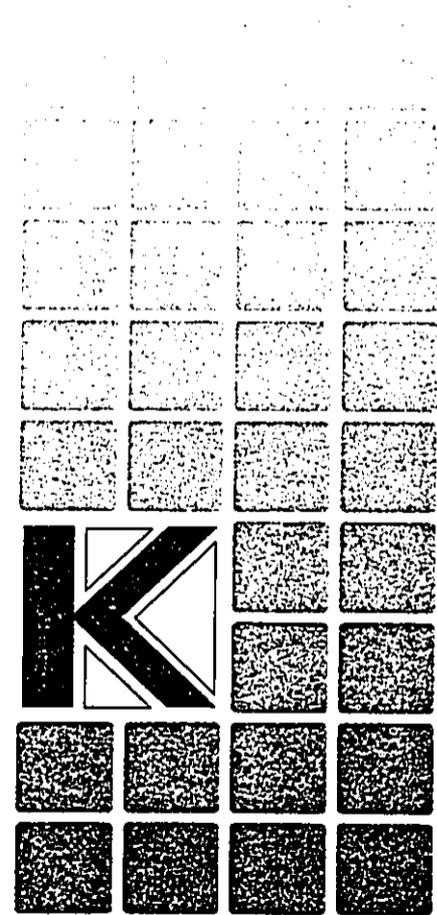
Based on the results of our analysis of existing and existing-plus-project traffic conditions within the study area, it is concluded that the proposed Kula Lodge expansion will not have a negative affect traffic operations and safety within the study area. In fact, the proposed site plan should result in a marginal improvement due to the proposed access, parking and on-site circulation improvements. No off-site transportation improvements are recommended as a result of the proposed expansion. The following is a summary of the key analysis findings:

1. The proposed project will result in a negligible increase in traffic on Haleakala Highway, and will not affect the level of service at the site driveways. The proposed site plan modifications should improve both the traffic operational and safety characteristics of the highway due to improved access, parking and internal circulation for the site.
2. With respect to existing conditions, the existing driveways serving the Kula Lodge currently operate at an acceptable level of service (LOS "A") during both the morning and afternoon peak hours.
3. Adequate intersection sight distance is available at both driveways, based on the measured 85th percentile speed near the site.
4. The proposed Kula Lodge expansion is conservatively estimated to generate 5 additional trips at the site driveways during the morning and afternoon peak hours.
5. The proposed expansion is anticipated to result in only a negligible increase in total traffic volumes on Haleakala Highway. It is noted that most of the Lodge's peak hour(s) business comes from traffic that is already passing by the site on its way to or from the Haleakala National Monument.
6. With the addition of site-generated traffic resulting from the expansion, the site driveways will continue to operate at LOS "A" during the peak hours.
7. As part of the proposed expansion, the existing northernmost driveway will be eliminated, the existing southernmost driveway will be widened, and one driveway will be added approximately 190 feet south of the existing southernmost driveway. All proposed site driveways will have clear sight lines that exceed 500 feet, which will allow traffic to safely ingress/egress the site.

8. The following improvements are anticipated to result from the proposed modifications to access, parking and circulation:
 - 1) The proposed expansion will greatly improve internal circulation as a result of a wider primary ingress/egress drive that will not be obstructed by on-street parking maneuvers or parked delivery vehicles. In addition, a separate loading area will be provided for delivery/service vehicles.
 - 2) Emergency service vehicle access and circulation will be improved through the provision of a turnaround area on site large enough to fit fire trucks.
 - 3) Bus parking and loading currently occurs on the highway shoulder. The proposed parking and circulation plan provides a separate area on site for bus loading, parking and circulation which will result in improved highway operations.
9. An examination of left-turn lane warrants indicated that an exclusive left-turn lane is not warranted at either site driveway.

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

Section 6
References



References

1. Transportation Research Board. *Highway Capacity Manual*. Special Report No. 209, 1985.
2. Institute of Transportation Engineers. *Trip Generation* (5th Edition). 1991.
3. Transportation Research Board. *Aspects of Traffic Control Devices*. Highway Research Record 211. 1990.

Appendix A

Level of Service Concept

Level of service (LOS) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various LOS from A to F.¹

Table A1
Level of Service Definitions (Signalized Intersections)

Level of Service	Average Delay per Vehicle to Minor Street
A	Very low average stopped delay, less than five seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Average stop delay is in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a LOS A, causing higher levels of average delay.
C	Average stopped delay is in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average stopped delays are in the range of 25.1 to 40.0 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average stopped delays are in the range of 40.1 to 60.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average stop delay is in excess of 60 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation. It may also occur at high volume/capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay levels.

¹ Most of the material in this appendix is adapted from the Transportation Research Board, *Highway Capacity Manual*, Special Report 209 (1985).

Signalized Intersections

The six LOS grades are described qualitatively for signalized intersections in Table A1. Additionally, Table A2 identifies the relationship between level of service and average stopped delay per vehicle. Using this definition, a "D" LOS is generally considered to represent the minimum acceptable design standard.

Table A2
Level-of-Service Criteria for Signalized Intersections

Level of Service	Stopped Delay per Vehicle (Seconds)
A	≤ 5.0
B	5.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	40.1 to 60.0
F	> 60.0

Unsignalized Intersections

The calculation of LOS at an unsignalized intersection requires a different approach. The *1985 Highway Capacity Manual* includes a methodology for calculating the LOS at two-way, stop-controlled intersections. For these unsignalized intersections, LOS is defined using the concept of "reserve capacity" (i.e., that portion of available hourly capacity that is not used). A qualitative description of the various service levels associated with an unsignalized intersection is presented in Table A3. A quantitative definition of LOS for an unsignalized intersection is presented in Table A4.

Table A3
General Level-of-Service Descriptions for Unsignalized Intersections

Level of Service	Average Delay per Vehicle to Minor Street
A	<ul style="list-style-type: none">Nearly all drivers find freedom of operation.Very seldom is there more than one vehicle in the queue.
B	<ul style="list-style-type: none">Some drivers begin to consider the delay an inconvenience.Occasionally there is more than one vehicle in the queue.
C	<ul style="list-style-type: none">Many times there is more than one vehicle in the queue.Most drivers feel restricted, but not objectionably so.
D	<ul style="list-style-type: none">Often there is more than one vehicle in the queue.Drivers feel quite restricted.
E	<ul style="list-style-type: none">Represents a condition in which the demand is near or equal to the probable maximum number of vehicles that can be accommodated by the movement.There is almost always more than one vehicle in the queue.Drivers find the delays approaching intolerable levels.
F	<ul style="list-style-type: none">Forced flow.Represents an intersection failure condition that is caused by geometric and/or operational constraints external to the intersection.

Table A4
Level-of-Service Criteria for Unsignalized Intersections

Reserve Capacity (pcph)	Level of Service	Expected Delay to Minor Street Traffic
≤ 400	A	Little or no delay
300-399	B	Short traffic delays
200-299	C	Average traffic delays
100-199	D	Long traffic delays
0-99	E	Very long traffic delays
*	F	*

*When demand volume exceeds the capacity of the lane, extreme delays will be encountered, with queuing that may cause severe congestion and affect other traffic movements in the intersection. This condition usually warrants intersection improvement.

The reserve capacity concept applies only to an individual traffic movement or to shared lane movements. Once the LOS, capacity, and expected delay of all the individual movements have been calculated, an overall evaluation of the intersection can be made. Normally, the movement having the worst LOS defines the overall evaluation, but this may be tempered by engineering judgment. An "E" LOS is generally considered to represent the minimum acceptable design standard.

Experience with the unsignalized analysis procedure indicates this methodology is conservative in that it tends to overestimate the magnitude of any potential problems. This is especially true for minor-street, left-turn movements. For example, the *Highway Capacity Manual* methodology does not take into account the effects of vehicle flow platoons that result from upstream signalization. Vehicles traveling in platoons tend to create greater gaps in the traffic flow, which sometimes provide additional capacity for the side closest to the signal. Therefore, the results of any unsignalized intersection analysis should be reviewed with this thought in mind. Generally, LOS E for the minor-street, left-turn movement is considered to be acceptable for an unsignalized intersection, although it also indicates that the need for signalization should be investigated.

All-Way Stop Controlled Intersections²

There is no accepted procedure for a level-of-service analysis of an all-way, stop-controlled intersection. The procedure used for determining LOS for a four-way or three-way stop-controlled intersection differs from that described for unsignalized intersections. This methodology, which is being reviewed by the Unsignalized Intersection Committee of the Transportation Research Board, uses a capacity estimation method based on headways observed at all-way, stop-controlled intersections in the western United States. The procedure incorporates several important variables, including volume distribution, number of lanes on each approach, and the percentage of right and left turns at the intersection. Intersection performance is measured in parameters similar to signalized intersections: delay, volume-to-capacity ratio, and Level of Service using a scale of "A" through "F". Approach delay on any given leg of the intersection is calculated using the following equation:

$$D = \exp \left(3.8 \times \frac{SV}{C} \right)$$

Where D=vehicle delay on a given approach (sec/veh)

SV=subject approach volume (vehicles per hour [vph])

C=calculated approach capacity (vph)

exp=base of natural logarithms

In this equation, the quantity SV/C is simply the volume-to-capacity ratio on the approach under consideration. Table A5 presents the LOS criteria for all-way, stop-controlled intersections.

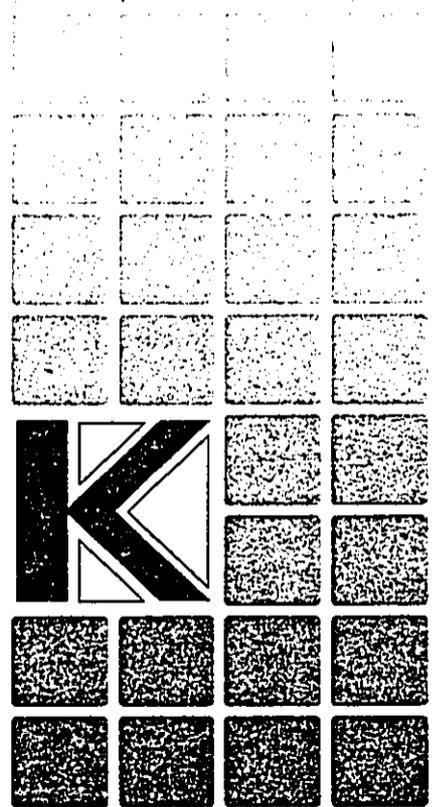
Table A5
Level-of-Service Definitions (All-way, Stop-Controlled Intersections)

Level of Service	Average Delay per Vehicle to Minor Street
A	< 5 Seconds
B	5 to 10 Seconds
C	10 to 20 Seconds
D	20 to 30 Seconds
E	30 to 45 Seconds
F	> 45 Seconds

² Kyte, Michael, *Estimating Capacity and Delay at an All-Way Stop-Controlled Intersection*. University of Idaho, Department of Civil Engineering Research Report September 1989.

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

Appendix B



DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Proposed Development will expand and improve the existing business activities to offer more services to both the resident and visitor communities while maintaining and enhancing the Upcountry atmosphere. Proposed uses and facilities are to be in keeping with the spirit and character of the existing Kula Lodge. The proposed development will include the following uses:

Area Tabulations:

	<u>Existing Area</u>	<u>Proposed Area</u>
Lodging Units:		
Duplex units (2@ 585sf)	1,170	1,170
Triplex units (3@ 480sf)	1,440	-----
Suites (2@ 830sf)	-----	1,660
Typical units (10@ 592sf)	-----	5,920
Caretaker unit (1@ 2,015sf)	-----	2,015
Total floor area of Lodging Units:	2,610sf	10,765sf
Agricultural:		
Protea Flower Packing Facility	2,800	2,800
Garden Structure at Entry	-----	260
Total floor area Agricultural:	2,800sf	3,060sf
Lodge:		
Lodge Lobby	-----	4,815
Lodge Basement	-----	3,990
Lodge Mezzanine	-----	1,050
Miscellaneous Circulation	-----	930
Total floor area Lodge:	-----	10,785sf
Lodge Related Commercial:		
Restaurant (incl. kitchen, etc.)	6,395	8,405
Outdoor Dining	1,260	2,550
Produce/Gift Shop	500	2,230
Art Gallery	1,300	1,990
Total floor area Lodge/Commercial:	9,455sf	15,145sf
Total floor area All Uses:	14,865sf	39,785sf

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

APPENDIX - D
Drainage and Erosion
Control Report



DRAINAGE REPORT

For The

KULA LODGE

At

KULA, MAUI, HAWAII

T.M.K. (2) 2-3-22:87



February 1995



Michael Conway

This report was prepared by
me or under my supervision.

1371 lower main street, suite 2
wailuku, maui, hawaii 96793
phone 808 244-8239 fax 242-7746

INTRODUCTION

This report presents a hydrology analysis for the proposed improvements to the Kula Lodge, located on the west side of Haleakala Highway south of the intersection with Kimo Drive at Kula, Maui, Hawaii (T.M.K. 2-2-3-22:87.) The proposed improvements include the addition of a new lodge building and tiered wing housing 13 guest units, improved parking for 103 cars (4 handicap), 2 loading zones, 2 bus parking bays with turn-around, a fire truck turn-around, a compactor, improved entrances, and renovations to the existing restaurant building.

The site contains approximately 3.77 acres, and is bordered by undeveloped land on the west, Haleakala Highway on the east, and minor gulches feeding Pulehu Gulch on the north and south. The proposed improvements are consistent with existing land use. The purpose of this analysis is to prepare hydrologic calculations for future developed conditions and to establish any storm water impacts resulting from the proposed improvements. The report details the method, site conditions and calculated runoffs, and hydrologic conclusions.

METHOD OF ANALYSIS

The hydrology for the drainage area was computed by the Rational Method, which is assumed accurate for areas of 100 acres or less. This method is fully described in the "Drainage Master Plan for the County of Maui, State of Hawaii (October, 1971)" and is required by the "Interim Drainage Standards for County of Maui - January 1994."

The Rational Method gives the results of the storm water runoff as a peak discharge amount at a point. For sheet flow runoff, this peak discharge amount is the total over the entire surface area. The Rational Method utilizes four hydrologic and watershed characteristics for its analysis which are:

- 1) Time of concentration (Tc)
- 2) Rainfall intensity (I)
- 3) Runoff coefficient (C)
- 4) Tributary area (A)

The Rational Method calculates the peak discharges with the following equation:

$$Q = CIA ; \quad \text{where:}$$

- Q = Peak discharge, cubic feet per second (cfs)
- C = Runoff coefficient
- I = Rainfall intensity, inches per hour (in./hr.)
- A = Total contributing area, acres (ac.)

The time of concentration (Tc) for the design storm is developed by estimating the travel time for the various overland flow watercourses.

The watercourses for future developed conditions consist of overland surface-flow. The time of concentration for the flow through each watercourse is determined upon the following factors:

- 1) Watercourse as a percent of total tributary area
- 2) Length of run of watercourse in feet
- 3) Type of watercourse

The design storm of the 50-year 1-hour storm event was used in the analysis of the future developed project site surface water runoff conditions. The design storm event is determined by the "Rainfall-Frequency Atlas of the Hawaiian Islands, US Weather Bureau (1962)" and the "Interim Drainage Standards for County of Maui - January 1994."

The time of concentration (Tc) and the design storm are used to develop the rainfall intensity (I) needed for the rational equation.

The runoff coefficient (C) is basically a percent of the land covered by an impervious surface. Weighted runoff coefficients are developed by using C values for different land uses and types given in the Storm Drainage Standards. The following equation is used to determine the weighted average runoff coefficient:

$$C \text{ weighted} = \frac{A_1C_1 + A_2C_2 + A_3C_3 \dots}{A_1 + A_2 + A_3 \dots} \quad \text{where } A_{(n)} \text{ is the area of contribution.}$$

The drainage area (A) is determined by calculating the area, in acres, upstream of the point where the peak discharge is to be determined.

After all the hydrologic factors are determined, a hydrograph can be generated to determine the volume of storm water runoff. The volume of storm water runoff is used to calculate the storage volumes needed in the design of detention or sedimentation basins. The modified Rational Method gives an approximation of the storm water runoff volume.

FLOODWAY ZONE

The site is not within any area designated by the US Federal Emergency Management Agency, Federal Insurance Administration, as a floodway area. While providing good drainage, the gulches adjoining the site are the upper reaches of a well-defined drainage way feeding Pulehu Gulch and are not subject to appreciable runoff from upstream.

Reference: Flood Insurance Rate Map, Panel 150003 0300 B (Panel not printed • • Minimal Tsunami Inundation).

DRAINAGE CONDITIONS

Well-defined dry gulches separate the northern and southern boundaries of the site from adjoining land areas. The site is protected from offsite runoff on its eastern boundary by roadside ditches along Haleakala Highway. The subject property slopes generally toward its western boundary and the two gulches. Existing drainage patterns divide onsite runoff between the northern and southern gulches which empty into Pulehu Gulch. Pulehu Gulch skirts major urban areas and terminates in State owned land currently used for sugar cultivation, near the abandoned Puunene air strip. As such, it poses no threat for possible flooding for any developed area.

Both gulches are well defined upper reaches with good carrying capacity. However, to minimize any impact to adjoining properties on the southern gulch, it is proposed to maintain the current quantity of storm runoff to the southern gulch and divert the remainder to the northern gulch. A series of trench drains and inlets will collect the runoff in the parking areas and pipe it under the new lodge building addition to a detention reservoir at the northwest corner of the project. The reservoir will be sized to accommodate runoff from the 50-year 1-hour storm. An outlet pipe in the northwest corner of the reservoir will then slowly release the runoff into the northern gulch so that the peak flow released will not exceed the current peak flow. A spillway will also be provided to protect the reservoir from runoffs exceeding the design storm level.

For the 50-year 1-hour design storm, existing on-site drainage patterns would discharge 10.70 cfs by sheet flow. After development, 14.38 cfs would be discharged.

See Appendix for hydrologic calculations. Figure 1 shows existing tributary drainage areas. Figure 3 shows developed tributary drainage areas. Figure 5 shows developed drainage system.

CONCLUSION

The net increase in runoff following development is 3.68 cfs. The proposed drainage infrastructure will divert most of the runoff directly or via the detention reservoir toward the northern gulch, thereby decreasing the amount of surface runoff reaching the southern and western boundaries. Pulehu Gulch, which receives the stormwater runoff, skirts major urban areas and terminates in State owned land currently used for sugar cultivation, near the abandoned Puunene air strip. As such, it poses no threat for possible flooding for any developed area. It is our professional opinion that the proposed improvements on this site would have negligible impact on the existing hydrology, and consequently will not adversely affect the adjoining properties.

APPENDIX

HYDROLOGY CALCULATIONS

From Rainfall-Frequency Atlas of Hawaiian Islands:

50-year 1-hour rainfall for subject property = 3.0 inches

1. Total developed area

Total project area = 3.766 acres

2. Runoff coefficient (C):

Table 1, Guide for the Determination of Runoff Coefficients for Built-up Areas

$$\text{Weighted C} = \frac{\text{Impervious area} \times (C_i) + \text{Pervious area} \times (C_p)}{\text{Total area}}$$

3. Time of concentration (Tc):

Plate 3, Overland Flow Chart

4. Rainfall intensity (I) for given Tc:

Plate 4, Intensity Duration 1 Hr. Rainfall Curves

5. Peak runoff (Q):

$$Q = CIA \text{ (cfs)}$$

EXISTING CONDITIONS

Runoff coefficient (C):

Impervious areas (roofs, walks, driveways, etc.)
Infiltration: 0.20 0.20 0.20

Relief: 0.03 0.03 0.03
 Vegetal cover: 0.07 0.07 0.07
 Development type: 0.45 0.45 0.45
 C, impervious (Ci): 0.75 0.75 0.75

Pervious areas (open areas, grass, etc.)

Infiltration: 0.00 0.00 0.00
 Relief: 0.03 0.03 0.03
 Vegetal cover: 0.00 0.00 0.00
 Development type: 0.45 0.45 0.45
 C, pervious (Cp): 0.48 0.48 0.48

Trib-utary	Area acres	Perv acres	Imperv acres	C	L ft	Average Cover	Slope %	Tc in	I ₅₀ in/hr	Q ₅₀ cfs
E1	0.986	0.953	0.033	0.49	480	Dense Grass	12.0	22.4	4.80	2.32
E2	2.164	1.465	0.699	0.57	530	AverGrass	13.0	17.5	5.30	6.54
E3	0.628	0.532	0.096	0.52	370	AverGrass	16.0	14.6	5.65	1.84

Total Existing Project Runoff 10.70

See Figure 2 for Tc and I for the existing conditions.

DEVELOPED CONDITIONS

Runoff coefficient (C):

Impervious areas (roofs, walks, driveways, etc.)

Infiltration: 0.20 0.20 0.20
 Relief: 0.03 0.03 0.03
 Vegetal cover: 0.07 0.07 0.07
 Development type: 0.45 0.45 0.45
 C, impervious (Ci): 0.75 0.75 0.75

Pervious areas (open areas, grass, etc.)

Infiltration: 0.00 0.00 0.00
 Relief: 0.03 0.03 0.03
 Vegetal cover: 0.00 0.00 0.00
 Development type: 0.45 0.45 0.45
 C, pervious (Cp): 0.48 0.48 0.48

Trib- utary	Area acres	Perv acres	Imperv acres	C	L ft	Average Cover	Slope %	Tc min	I ₅₀ in/hr	Q ₅₀ cfs
F1	0.308	0.123	0.185	0.64	150	Paved	5.0	6.2	7.40	1.46
F2	0.184	0.015	0.169	0.73	120	Paved	5.0	5.7	7.55	1.01
F3	0.248	0.020	0.228	0.73	120	Paved	5.0	5.7	7.55	1.37
F4	0.220	0.004	0.216	0.74	130	Paved	5.0	5.9	7.50	1.22
F5	0.330	0.026	0.304	0.73	110	Paved	5.0	5.5	7.60	1.83
F6	0.230	0.120	0.110	0.61	80	Aver Grass	5.0	15.8	5.50	0.77
F7	0.223	0.078	0.145	0.66	80	Paved	5.0	4.8	7.90	1.16
F8	0.826	0.776	0.050	0.50	320	Dense Grass	15.0	18.2	5.20	2.15
F9	0.526	0.526	0.000	0.48	330	Dense Grass	15.0	18.4	5.20	1.31
F10	0.670	0.505	0.165	0.55	280	Aver Grass	11.0	14.0	5.70	2.10
Total Developed Project Runoff									14.38	

See Figure 4 for Tc and I for the developed conditions.

SUMMARY

Runoff Quantities:

14.38 cfs developed (future) runoff for 50-year 1-hour storm
 - 10.70 cfs undeveloped (existing) runoff for 50-year 1-hour storm
 3.68 cfs increased runoff following improvements

Required Detention Capacity:

10.97 cfs (into reservoir) x 60 x 60 = 39,492 cu ft.
 But reservoir will be draining and filling simultaneously.
 Construct reservoir with approximate 40,000 cu ft capacity.

Figure 1

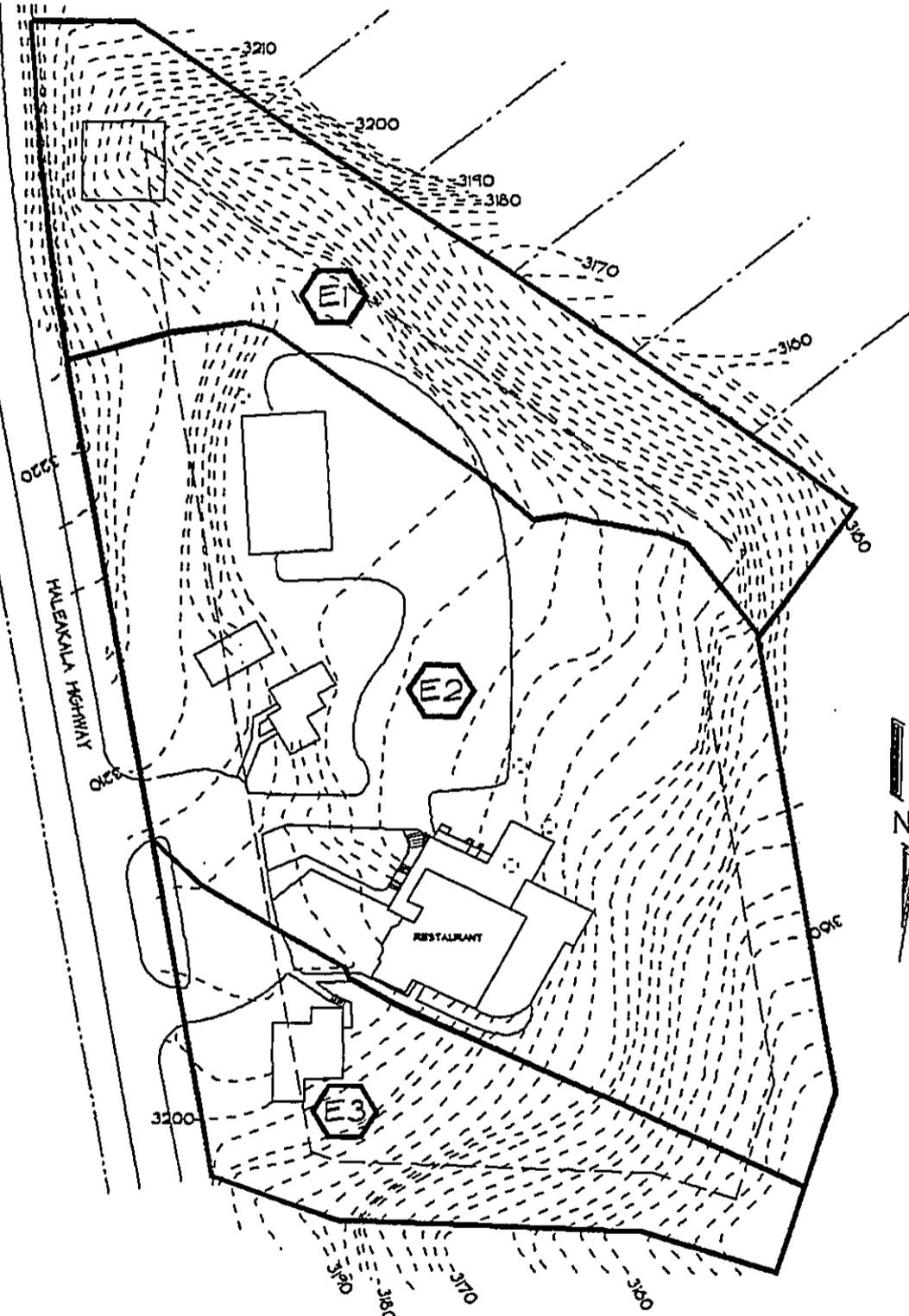


Figure 2

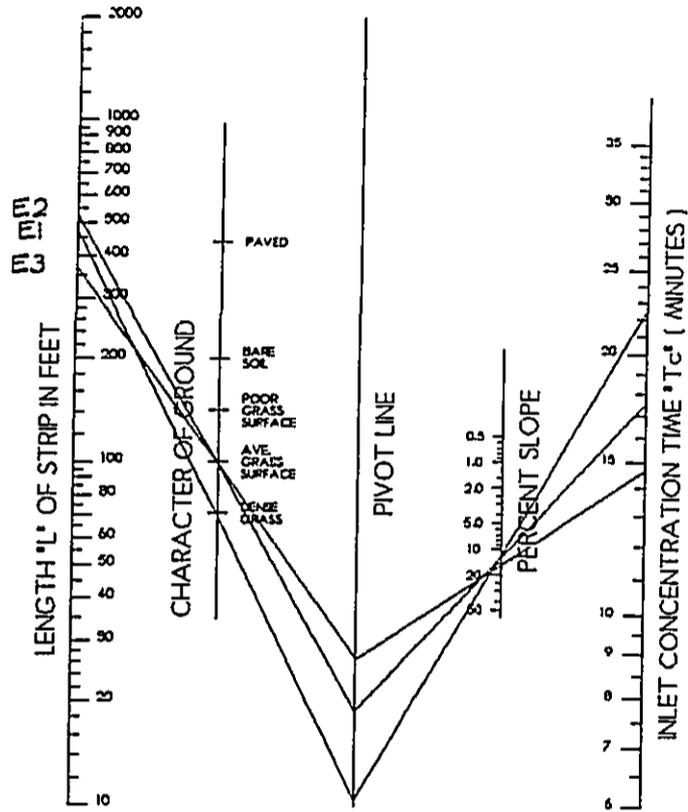


Plate 3
Overland
Flow
Chart

Plate 4

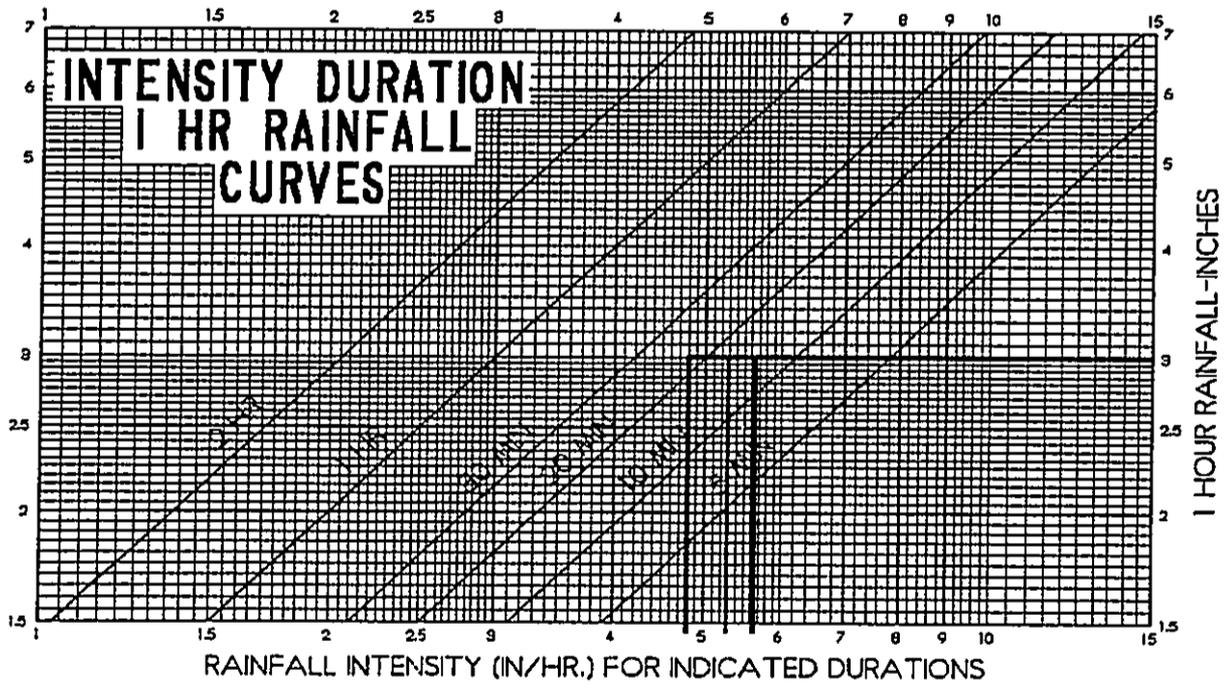


Figure 3

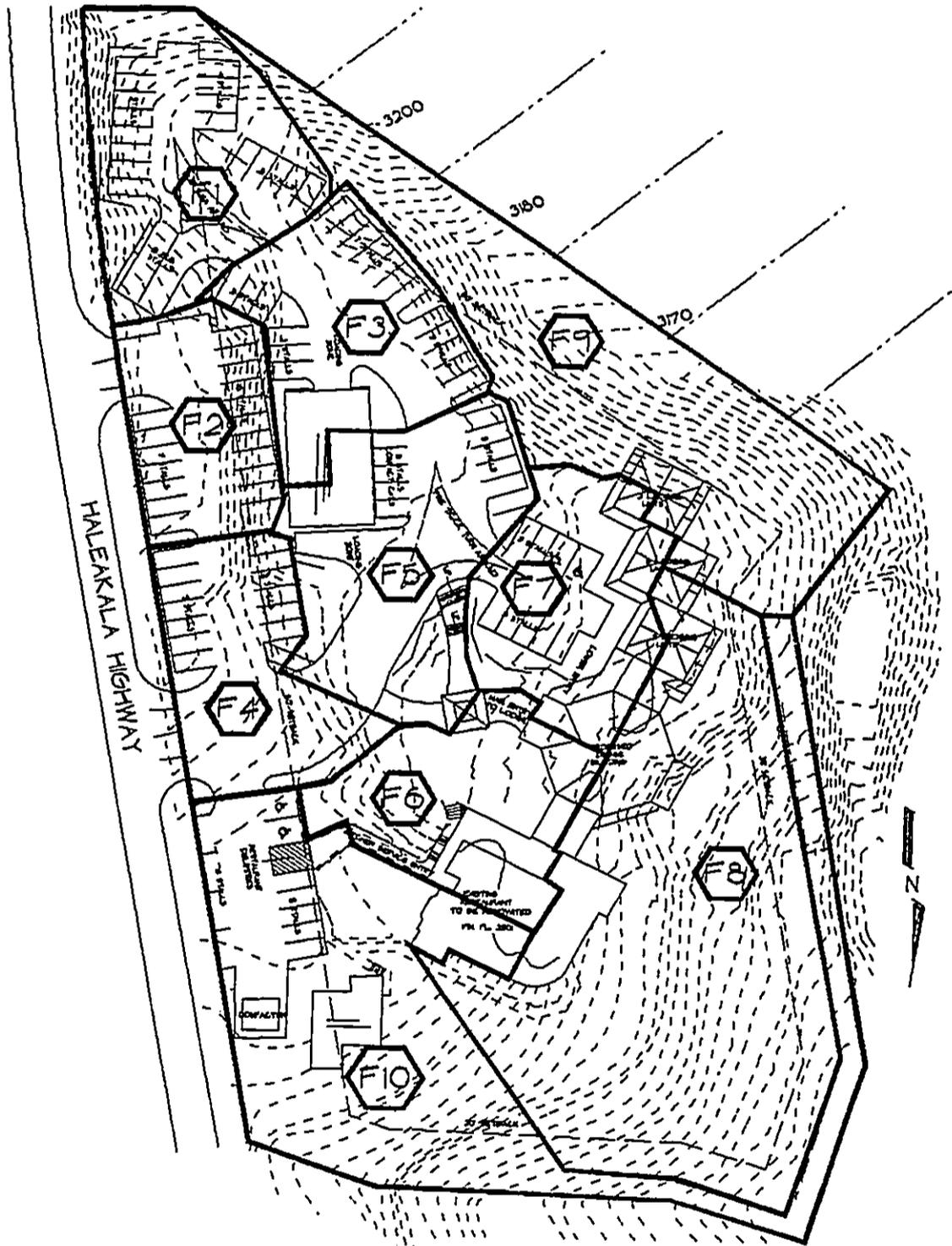


Figure 4

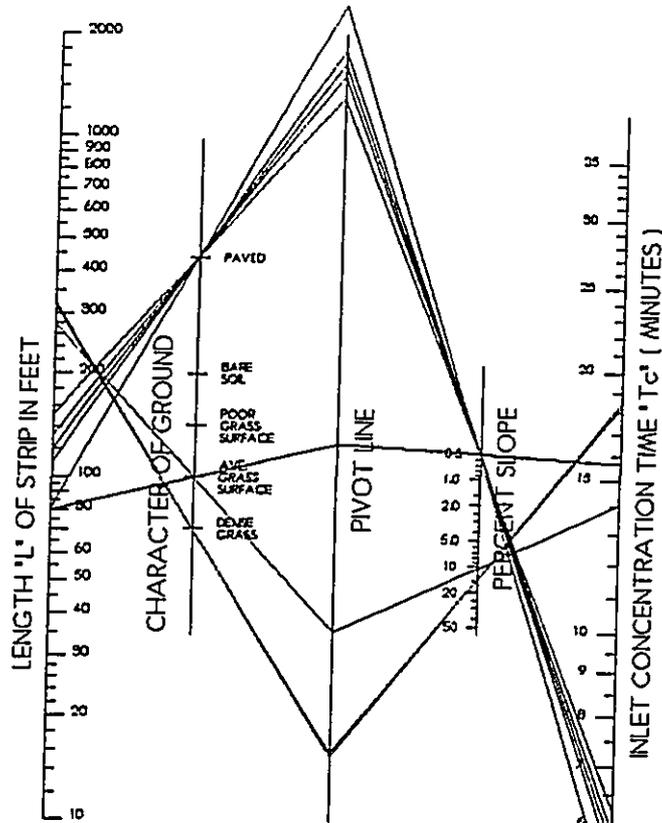


Plate 3

Overland
Flow
Chart

Plate 4

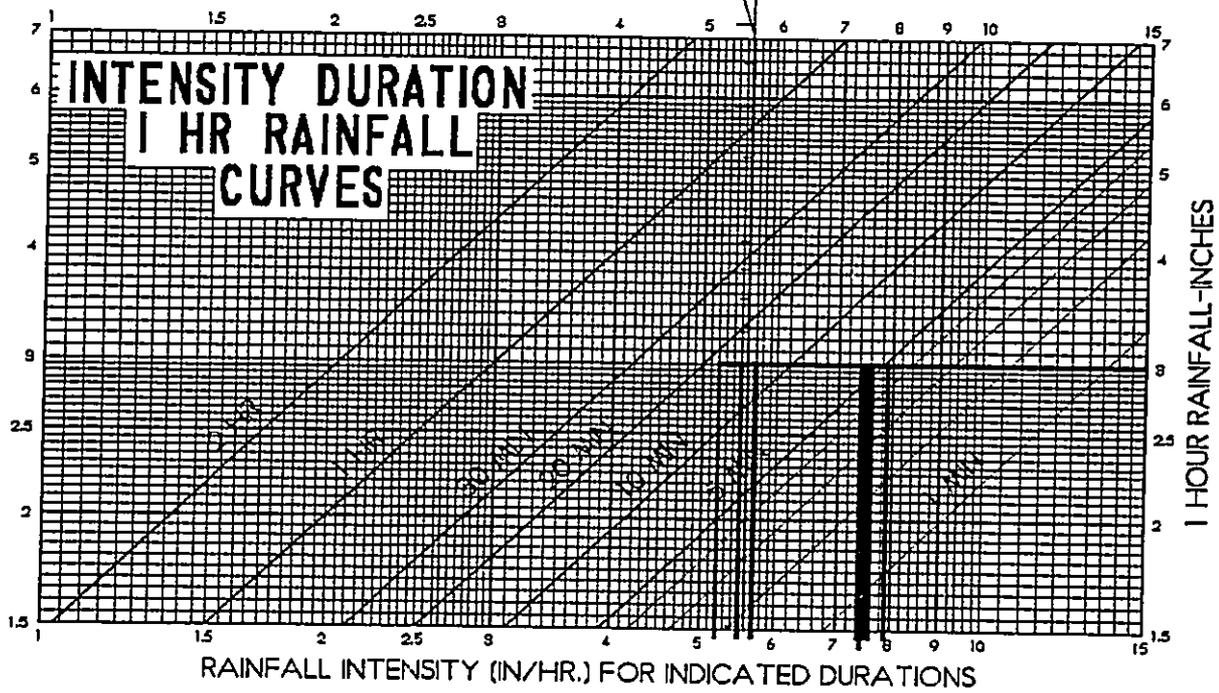
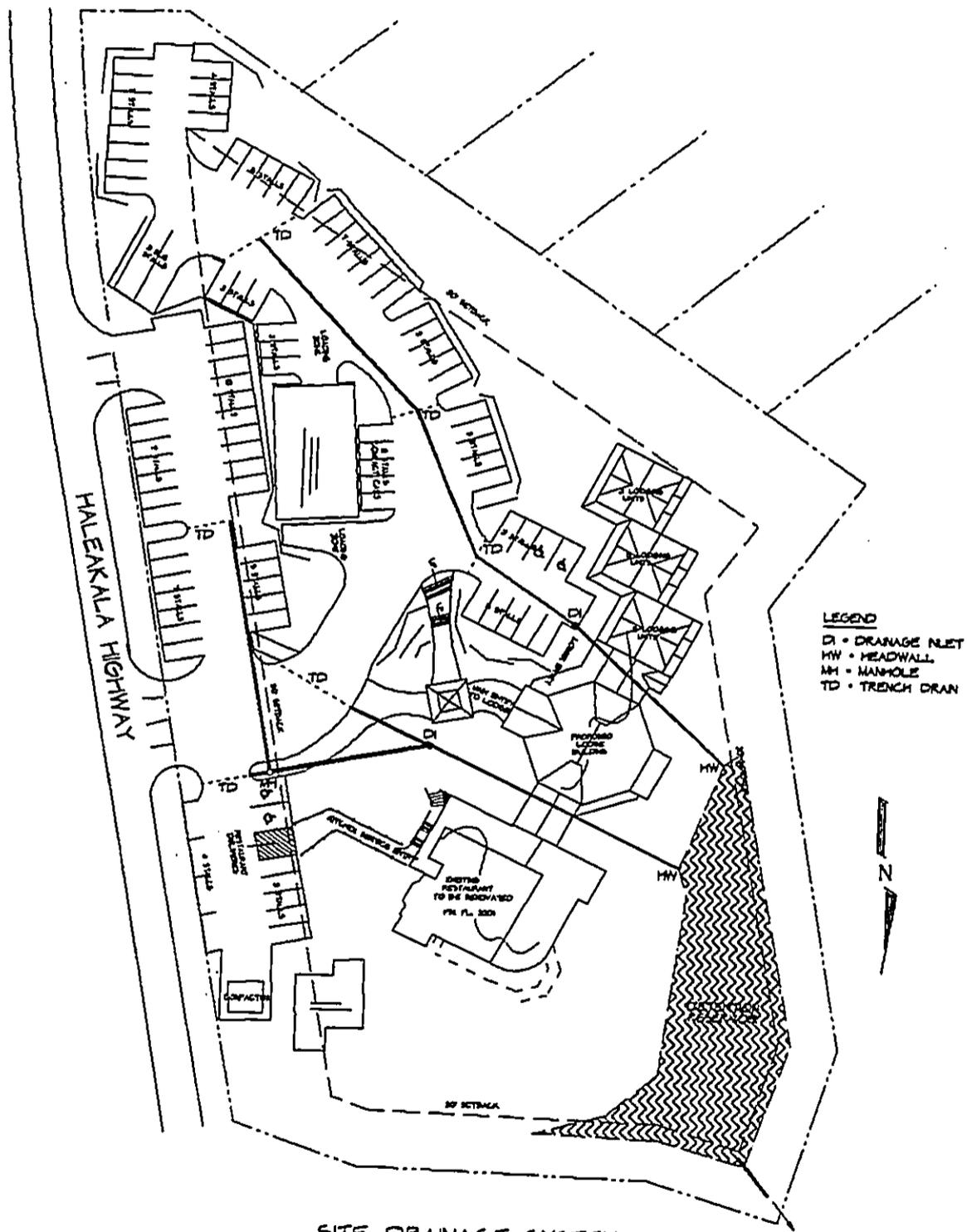


Figure 5



Drainage Report

SITE DRAINAGE SYSTEM
SCALE: 1" = 80'
13

94026



EROSION **C**ONTROL **R**EPORT

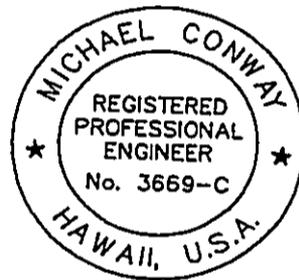
For The

KULA LODGE

At

KULA, MAUI, HAWAII

T.M.K. (2) 2 - 3 - 22 : 87



February 1995



Michael Conway

This report was prepared by
me or under my supervision.

1371 lower main street, suite 2
wailuku, maui, hawaii 96793
phone 808 244-8239 fax 242-7746

INTRODUCTION

This report presents a hydrology analysis for the proposed improvements to the Kula Lodge, located on the west side of Haleakala Highway south of the intersection with Kimo Drive at Kula, Maui, Hawaii (T.M.K. 2-2-3-22:87.) The proposed improvements include the addition of a new lodge building and tiered wing housing 13 guest units, improved parking for 103 cars (4 handicap), 2 loading zones, 2 bus parking bays with turn-around, a fire truck turn-around, a compactor, improved entrances, and renovations to the existing restaurant building.

The site contains approximately 3.77 acres, and is bordered by undeveloped land on the west, Haleakala Highway on the east, and minor gulches feeding Pulehu Gulch on the north and south. The proposed improvements are consistent with existing land use. The purpose of this analysis is to determine the impact of the proposed development on soil runoff and possible treatment required to reduce erosion and sedimentation to a level that will meet standards set by County, State and Federal statutes and regulations. The report details the method, site conditions, calculated runoffs, and control plan.

The analysis follows the procedures in the United States Department of Agriculture's handbook "Erosion and Sedimentation Control Guide for Hawaii".

SOIL TYPE

The "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)", page 109, classifies the soil at the project site and vicinity as Pane Series, Pane Silt Loam, (PXD, 7 to 25 percent slopes). Permeability for this soil is moderately rapid. Runoff is slow to medium, and the erosion hazard is slight to moderate. Available water capacity is 1.8 inches per foot of soil in the surface layer and subsoil (typically, 8 inches and 49 inches thick respectively.)

Figure 1 locates the site on a soil map (Sheet Number 116).

EROSION CONTROL STUDY

As indicated above, the soil at the project site and surrounding vicinity consists of the Pane Series, Pane Silt Loam, (PXD, 7 to 25 percent slopes), characterized as having a slight to moderate erosion hazard, with a slow to moderate runoff, and

moderately rapid permeability. This type of soil has a soil erodibility factor (K) of 0.17 according to the "Erosion and Sediment Control Guide for Hawaii, SCS (March, 1981)", page 56.

The area to be disturbed during construction (Figure 2) is 2.03 acres.

The Universal Soil Loss Equation (USLE) is used to estimate the maximum average annual soil loss during construction. This equation is stated as follows:

$$E = R K L S C P, \text{ where}$$

R = Rainfall Factor = 190 tons/acre/year

K = Soil Erodibility Factor = 0.17

[L = Grade Length = 240 feet)

(S = Grade Slope = 17%)

LS = Slope Length Factor = 4.83

C = Cover Factor = 1.00 (Bare Soil)

P = Control Practice Factor = 1.00 (Non-agricultural)

$$E = 190 \times 0.17 \times 4.83 \times 1 \times 1 = 156.01 \text{ tons/acre/year}]$$

Allowable Erosion Rate:

$$\text{Maximum erosion rate} \times \text{construction area} = 5,000 \text{ tons/year}$$

$$\text{Graded site area} = 2.03 \text{ acres}$$

$$\text{Allowable Erosion Rate (E')} = 5,000/2.03 = 2,463 \text{ tons/acre/year}$$

Severity Rating Number:

$$H = (2 F T + 3 D) A E, \text{ where}$$

H = Severity Rating Number

F = Downstream Hazard = 4

D = Coastal Water Hazard = 2

T = Duration of Site Work in Years = 0.5

A = Construction Area in Acres = 2.030

E = Uncontrolled Erosion Rate in Tons/Acre/Year = 156.01

$$H = (2 \times 4 \times 0.5 + 3 \times 2) (2.030 \times 156.01) = 3167.0, \text{ within the maximum allowable value of 50,000.}$$

EROSION CONTROL PLAN

Erosion control measures will be guided by Chapter 20.08, "Soil Erosion and Sedimentation Control", of the Maui County Code and the Hawaii State Department of Health Clean Water Branch. The site to be disturbed is less than five acres and therefore will not require a NPDES permit. The specific measures shall include:

1. Use of sprinklers and/or waterwagon during construction period to control wind borne dust.
2. Grassing, planting or paving all exposed areas immediately upon completion of construction work.

DOCUMENT CAPTURED AS RECEIVED

Figure 1

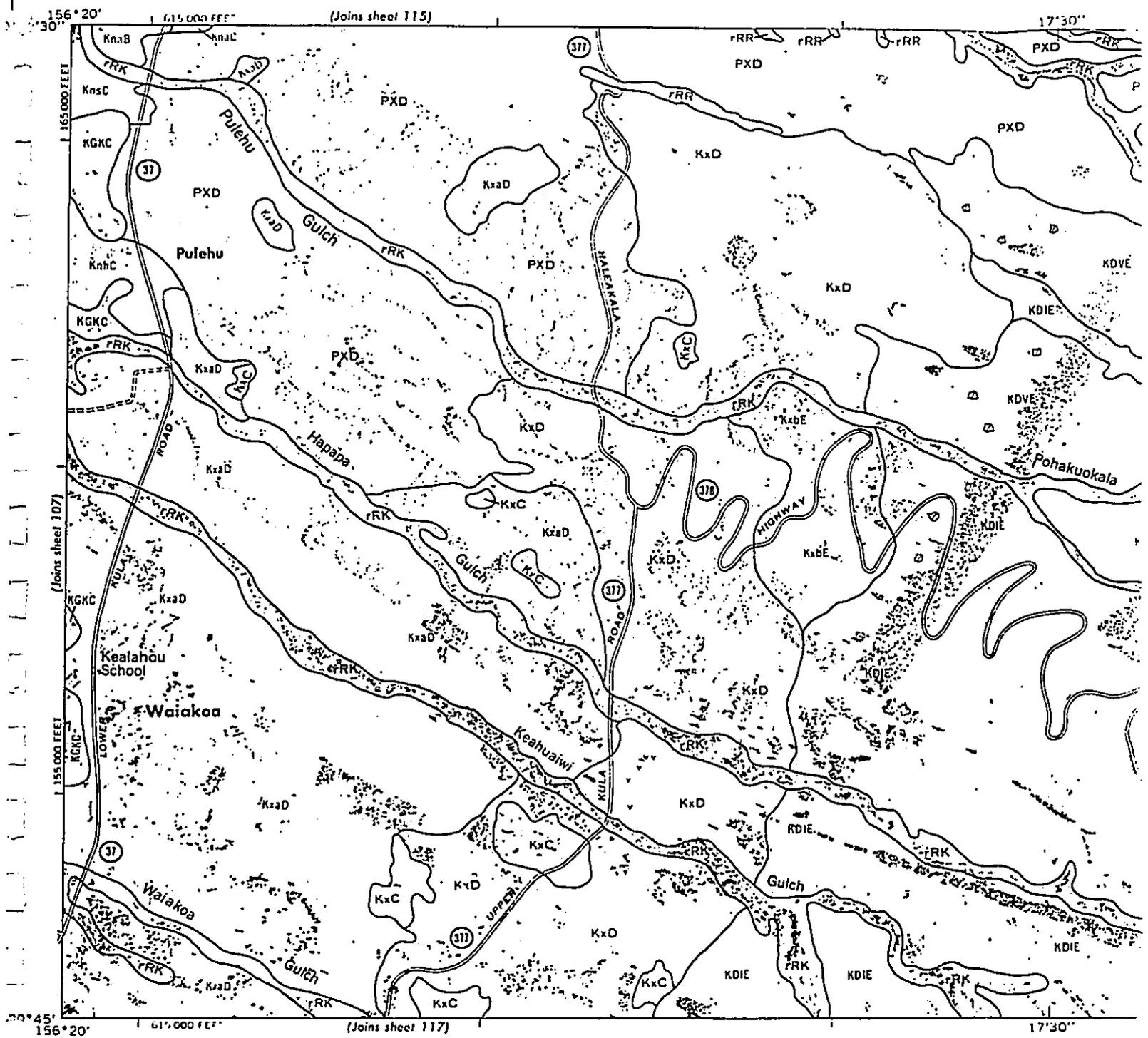
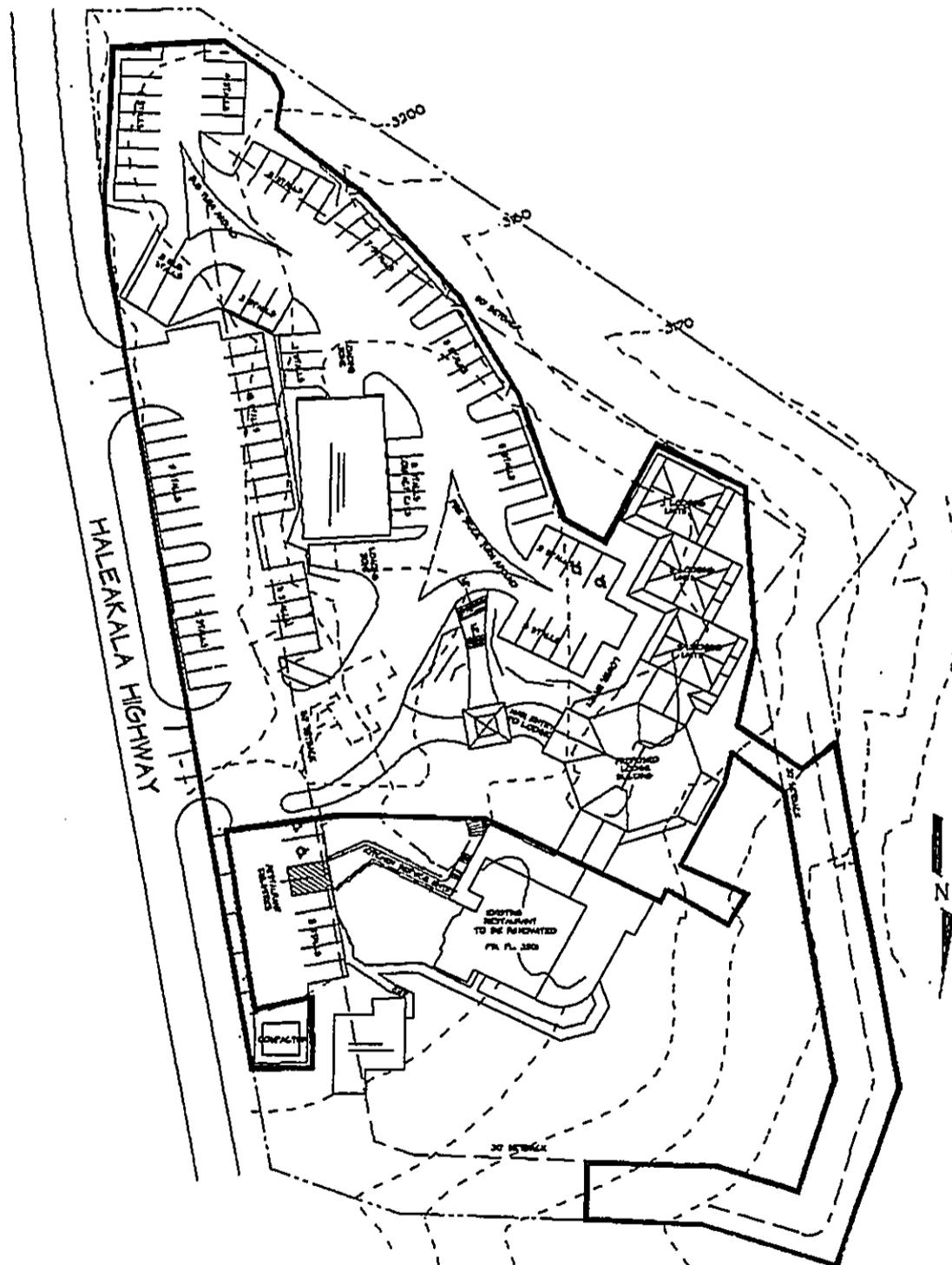


Figure 2



CONSTRUCTION AREA
SCALE: 1" = 80'
6

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

APPENDIX E

**APPENDIX E -
DRAFT EA COMMENTS
AND RESPONSES**



BOARD OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1108
WAILUKU, MAUI, HAWAII 96793-1108

June 9, 1995

25 JUN 14 P1:08

DEPT OF PLANNING
COUNTY OF MAUI

RECEIVED

Mr. Brian W. Miskae, Director
Maui County Planning Department
250 South High Street
Wailuku, Hawaii 96793

Aloha Mr. Miskae,

Re: Proposed renovation and expansion of retreat resort and related facilities, Project District 1, TMK: 2-3-22:87, Kula; Applications for Community Plan Amendment and Phase 1 Project District Amendment, Nos. 93/CPA-4 and 93/EA-11, submitted by Fred Romanchak for Kula Lodge and Restaurant

Mahalo for providing the Board of Water Supply with the opportunity and materials to review the subject request. We have no recommendation specific to the request. We provide additional information to your department and the applicant as follows:

WATER SHORTAGE

1. A two-inch water meter serves the parcel;
2. Inadequate water source affects the subject region. New hook-ups to the source by way of the community system are restricted. No guarantee of an upgraded meter or new meters for the project expansion is granted or implied as a result of these comments or the approval of the subject land-use applications; and
3. The applicant must demonstrate in water calculations that the existing meter is adequate to serve the expanded project. These calculations are required with a building permit for the expansion.

WATER CONSERVATION

4. **DROUGHT-TOLERANT PLANTINGS:** Full, attractive plantings are encouraged; but, limit the commitment of the island's water resources to irrigation. The subject site is located in what is naturally part of the subalpine plant community, and Maui County Plan Natural Plant Survival Zone 2, above 3,000 feet elevation. Some plants which survive in this zone are included on the list, "Some Maui Native and Polynesian Plants." We forward a copy to the applicant. In addition, *Emoloa*, *Eragrostis variplis* is a three-foot-tall, bunching grass that is native to the area.

"By Water All Things Find Life"

June 9, 1995
Mr. Brian W. Miskae, Director
Proposed expansion of Kula Lodge, TMK:2-3-22:87
Application Nos. 93/CPA-4 and 93/EA-11
page 2 of 2

WATER CONSERVATION 4. (concluded)

We suggest that irrigated turf area be limited to 25% or less of the total planting area. Turf species with lower water use requirements are, for example, Buffalograss (18"-28"/year), Common Bermuda, 'No Mow' Bermuda and Zoysia. Concentrate irrigated turf in areas which are comfortable for frequent active play and picnicking. Remove turf from roadside areas, parking lots, boundaries, remote areas and other areas which are too uncomfortable, exposed, or out-of-the-way for active leisure. Instead, use drought-tolerant, low groundcover and shrubs in those areas;

5. PREVENT OVER-WATERING BY AUTOMATED SYSTEMS: Provide rain-sensing over-rides on all automatic irrigation controllers; and check and reset controllers at least once a month to match the seasonal evapotranspiration rate at the site. Or provide the more-automated, soil-moisture-sensing over-rides on all controllers.

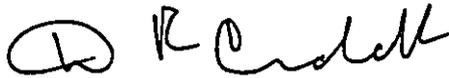
Further guidance in water conservation in landscaping may be found in the document, "XERISCAPE: Water Conservation Through Creative Landscaping." We forward a copy to the applicant; and

6. ELIMINATE SINGLE-PASS COOLING: Building and stand-alone mechanical equipment, including but not limited to air-conditioners and commercial ice-makers, should be specified as air-cooled or recirculating water-cooled. Eliminate single-pass water-cooled systems per Maui County Code Subsection 14.21.20.

You can reach me at ph. 243-7816, or, staff, Ellen Kraftsow and Dana De Sors at ph. 243-7835, if you'd like further assistance.

Sincerely,

MAUI COUNTY BOARD OF WATER SUPPLY



David R. Craddick, Director

DDS
c:\dds\kula.1od

c/encls: Applicant- Fred Romanchak, RR1 Box 475, Kula, 96790
Agent- Chris Hart & Partners, 1955 Main St., Wailuku 96793



September 22, 1995

Mr. David R. Craddick, Director
Maui County Board of Water Supply
P.O. BOX 1109
Wailuku, Maui, Hawaii 96783-7109

Dear Mr. Craddick:

Subject: Draft Environmental Assessment - Response to Comments
Kula Lodge and Restaurant Expansion (93/CP1-004, 93/EA-011)
TMK: 2-3-22:87, Kula, Maui, Hawaii

Thank you for commenting on the above referenced Application and Environmental Assessment.

1. Preliminary calculations indicate that the existing meter is adequate to serve the proposed project. Final calculations will be submitted at the time of building permit application.
2. Current landscape plantings at the site consist of varieties which are well adapted to Kula's cool, dry climate, and as such create relatively low irrigation demands. New landscape plantings will continue to utilize plants adapted to Kula's climate.
3. Irrigation controls are, and will continue to be, properly checked at least once a month to match the seasonal evapotranspiration rate at the site.
4. The applicant will comply with Maui County Code Subsection 14.21.20 regarding single-pass cooling.

Thank you once again for commenting on this project. If you have any additional questions please contact Mr. Rory Frampton of our office.

Sincerely,


Sr. CHRISTOPHER L. HART
Landscape Architect - Planner

cc: Ann Cua, Planning Department
Fred Romanchak, Kula Lodge and Restaurant

LANDSCAPE ARCHITECTURE AND PLANNING

1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956

3591
LINDA CROCKETT LINGLE
Mayor
GEORGE N. KAYA
Director
CHARLES JENCKS
Deputy Director
AARON SHINMOTO, P.E.
Chief Staff Engineer



RALPH NAGAMINE, L.S. P.E.
Land Use and Codes Administration
EASSIE MILLER, P.E.
Wastewater Reclamation Division
LLOYD P.C.W. LEE, P.E.
Engineering Division
DAVID WISSMAR, P.E.
Solid Waste Division
BRIAN HASHIRO, P.E.
Highways Division

95 MAY 26 10:00
COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
DEPT OF PUBLIC WORKS AND WASTE MANAGEMENT
COUNTY OF MAUI
RECEIVED
LAND USE AND CODES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

May 25, 1995

MEMO TO: Brian W. Miskog, Planning Director
FROM: Charles Jencks, Public Works & Waste Management Director
SUBJECT: Community Plan Amendment and Environmental Assessment Permit
Applications
KULA LODGE
TMK: (2)2-3-033:087
93/CPA-004 & 93/EA-011

We reviewed the above request and have no comments.

If you have any questions regarding this memorandum, please call me at ext.
7845.

ey
xc: Engineering Division
Solid Waste Division

g:\luca\all\czm\kula\lodg

95 MAY 11 10:35 AM
COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL
FIRE PREVENTION BUREAU
21 KINIPOPO STREET
WAILUKU, HI 96793
PH.(808) 243-7566

May 09, 1995

MEMO TO: Ann Cua, Planner
FROM: *Leonard J. Niemczyk*
Leonard Niemczyk, Captain
SUBJECT: I.D. No.: 93/CPA-004, 93/EA-011
TMK: 2-3-22:87
Project Name: Kula Lodge
Applicant: Fred Romanchak

Thank you for the opportunity to comment on the above project request. Please be informed we have no objections to the applicant's request at this time.

However, upon submittal of plans for a Building Permit applicant will be required to meet all applicable Fire Code requirements for his proposed project.

SEARCHED _____
SERIALIZED _____
INDEXED _____
FILED _____
MAY 11 1995
FBI - WAILUKU
5/11/95

DOCUMENT CAPTURED AS RECEIVED

95 MAY 11 10:00 AM
COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL
FIRE PREVENTION BUREAU
21 KINIPOPO STREET
WAILUKU, HI 96793
PH.(808) 243-7566

May 09, 1995

MEMO TO: Ann Cua, Planner
FROM: *Leonard D. Niemczyk*
Leonard Niemczyk, Captain
SUBJECT: I.D. No.: 93/CPA-004, 93/EA-011
TMK: 2-3-22:87
Project Name: Kula Lodge
Applicant: Fred Romanchak

Thank you for the opportunity to comment on the above project request. Please be informed we have no objections to the applicant's request at this time.

However, upon submittal of plans for a Building Permit applicant will be required to meet all applicable Fire Code requirements for his proposed project.

SEARCHED
SERIALIZED
INDEXED
FILED
MAY 11 1995
FBI - HONOLULU
5/11/95

DOCUMENT CAPTURED AS RECEIVED

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
DEPUTY
GILBERT COLOMA-AGARAN

95 MAY 11 AM 11:47

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

RECEIVED

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

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

May 8, 1995

Mr. Brian Miskae, Director
Maui Planning Department
250 South High Street
Wailuku, Hawaii 96793

LOG NO: 14512 ✓
DOC NO: 9505SC02

Dear Mr. Miskae:

SUBJECT: (I.D. Nos. 93/CPA-004, 93/EA-011) Historic Preservation Review of the Community Plan Amendment and Environmental Assessment for the Kula Lodge and Restaurant Expansion Kula, Makawao District, Maui TMK: 2-3-22:87

Thank you for the opportunity to comment on the Community Plan and Environmental Assessment for the Kula Lodge and Restaurant Expansion. Our review is based on historic reports, aerial photographs, and maps maintained at the State Historic Preservation Division; no field inspection was conducted on the subject parcel.

We have no record of historic sites on the property of the Kula Lodge and Restaurant. Given the history of land modification associated with the construction and commercial use of the property, it seems unlikely that any significant historic sites are still present. Therefore, we believe that the proposed undertakings will have "no effect" on significant historic sites.

Should you have any questions, please feel free to contact Sara Collins at 587-0013.

Aloha

DON HIBBARD, Administrator
State Historic Preservation Division

SC:jen

M-11
PLANNING
DEPT
33-AN
33-EN
COLLEEN
CLAYTON
33-2
SEL: 7429

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET
HONOLULU, HAWAII 96813

5/11/95

815
BENJAMIN J. CAYETANO
Governor of Hawaii



Chairperson
MICHAEL D. WILSON
Board of Land and Natural Resources

Deputy Director
GILBERT COLOMA-AGARAN

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES
REF: OCEA: TES

95 JUN 29 1995
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

P. O. Box 621
Honolulu, Hawaii 96809

FILE NO.: 95-534

Aquaculture Development
Aquatic Resources
Boating and Ocean Recreation
Bureau of Conveyances
Conservation and Environmental Affairs
Conservation and Resources Enforcement
Forestry and Wildlife
Historic Preservation
Land Management
State Parks
Water and Land Development

The Honorable Gwen Y. Ohashi, Acting Director
Planning Department
County of Maui
250 South High Street
Wailuku, Hawaii 96793

JUN 28 1995

Dear Ms. Ohashi:

SUBJECT: Community Plan and Phase I Project District Amendment
Application (93/CPA-004): Kula Lodge & Restaurant
Expansion, Kula, Maui, TMK: 2-3-22: 87

We have reviewed the application information for the subject project transmitted by your memorandum dated May 1, 1995, and offer the following:

Historic Preservation Division

The Historic Preservation Division comments that their review is based on historic reports, aerial photographs and maps maintained at the State Historic Preservation Division (HPD); no field inspection was conducted on the subject parcel.

HPD has no record of historic sites on the property of the Kula Lodge and Restaurant. Given the history of land modification associated with the construction and commercial use of the property, it seems unlikely that any significant historic sites are still present. Therefore, HPD believes that the proposed undertakings will have "no effect" on significant historic sites.

We have no other comments to offer at this time. Thank you for the opportunity to comment on this matter.

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

Aloha,

Gilbert A. Coloma-Agaran
MICHAEL D. WILSON

ST:tes

BENJAMIN J. CAYETANO
Governor of Hawaii



Chairperson
MICHAEL D. WILSON
Board of Land and Natural Resources

Deputy Director
GILBERT COLOMA-AGARAN

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

95 JUL 12 12:41

P. O. Box 621
Honolulu, Hawaii 96809

REF: OCEA:KRM
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

FILE NO.: 95-534a

Aquaculture Development
Aquatic Resources
Boating and Ocean Recreation
Bureau of Conveyances
Conservation and Environmental Affairs
Conservation and Resources Enforcement
Forestry and Wildlife
Historic Preservation
Land Management
State Parks
Water and Land Development

The Honorable Gwen Y. Ohashi, Acting Director
Planning Department
County of Maui
250 South High Street
Wailuku, Hawaii 96793

JUL 10 1995

Dear Ms. Ohashi:

SUBJECT: Community Plan and Phase I Project District Amendment
Application (93/CPA-004): Kula Lodge & Restaurant
Expansion, Kula, Maui, TMK: 2-3-22: 87

The following are our additional comments on the subject application which supplement those previously forwarded by our letter of June 28, 1995:

Division of Water and Land Development

The Division of Water and Land Development (DOWALD) comments that the detection reservoir capacity should not be determined by simply using a 50-year, 1-hour storm flood peak of 10.97 cfs resulting in a quantity of 40,000 cu. ft. The required reservoir size should be based on a conceptual design (reservoir area and depth), using a 24-hour flood hydrograph.

We have no other comments to offer at this time. Thank you for the opportunity to comment on this matter.

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

Aloha,

Gilbert S. Coloma-Agaran
for MICHAEL D. WILSON

ST:krm



September 22, 1995

Mr. Michael D. Wilson, Director
Department of Land and Natural Resources
State of Hawaii
P.O. BOX 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: Draft Environmental Assessment - Response to Comments
Kula Lodge and Restaurant Expansion (93/CP1-004, 93/EA-011)
TMK: 2-3-22:87, Kula, Maui, Hawaii

Thank you for commenting on the above referenced Application and Environmental Assessment.

The Preliminary Drainage Report utilized a 50-year 1-hour storm design standard for conceptual design of the drainage system. In the process of final drainage plan approval (during the building permit review stage), the County of Maui will require additional calculations utilizing a 24-hour flood hydrograph. The applicant will comply with these requirements during final plan approval.

Thank you once again for commenting on this project. If you have any additional questions please contact Mr. Rory Frampton of our office.

Sincerely,


for CHRISTOPHER L. HART
Landscape Architect - Planner

cc: Ann Cua, Planning Department
Fred Romanchak, Kula Lodge and Restaurant

LANDSCAPE ARCHITECTURE AND PLANNING

1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956

12514
BENJAMIN J. CAYEIANO
Governor of Hawaii



LAWRENCE MIKE
Director of Health
Lawrence Hart, M.D., M.P.H.
District Health Services Administrator (M.D.)

95 MAY 17 8 26
STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793
DEPT. OF HEALTH
COUNTY OF MAUI
RECEIVED

May 11, 1995

Mr. Brian Miskae
Director
Department of Planning
County of Maui
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Miskae:

Subject: 93/CP1-004, 93/EA-011, Kula Lodge, TMK: 2-3-22: 87, Kula, Maui, Hawaii

Thank you for the opportunity to review and comment on the subject application. Our comments are as follows:

The wastewater generated by the expansion will be handled by the use of septic tanks. It appears that the amount of wastewater to be generated will require a wastewater treatment works rather than septic tanks. The applicant is required to consult with the Wastewater Branch of the Department of Health on the requirements of Chapter 62 "Wastewater Systems", Title 11, Administrative Rules, Department of Health.

If you have any questions regarding the above, please call me at 243-5255.

Sincerely,

HERBERT S. MATSUBAYASHI
Chief Sanitarian, Maui



September 22, 1995

Mr. Herbert S. Matsubayashi
Chief Sanitarian, Maui
Department of Health
State of Hawaii
54 High Street
Wailuku, Hawaii 96793

Dear Mr. Matsubayashi:

Subject: Draft Environmental Assessment - Response to Comments
Kula Lodge and Restaurant Expansion (93/CP1-004, 93/EA-011)
TMK: 2-3-22:87, Kula, Maui, Hawaii

Thank you for commenting on the above referenced Application and Environmental Assessment.

An engineering report for a septic system for the proposed project was approved on December 21, 1992 by the Department of Health. The applicant is ascertaining whether this approval is still valid. In any event, the applicant will comply with the Department of Health's regulations concerning wastewater disposal.

Thank you once again for commenting on this project. If You have any additional questions please contact Mr. Rory Frampton of our office.

Sincerely,


for CHRISTOPHER L. HART
Landscape Architect - Planner

cc: Ann Cua, Planning Department
Fred Romanchak, Kula Lodge and Restaurant

LANDSCAPE ARCHITECTURE AND PLANNING

1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956



95 JL-3 P354
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPIOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813-5249
PHONE (808) 586-3777
FAX (808) 586-3799

June 27, 1995

Mr. Brian Miskae, Planning Director
County of Maui
Planning Department
250 S. High Street
Wailuku, Maui, Hawai'i 96793

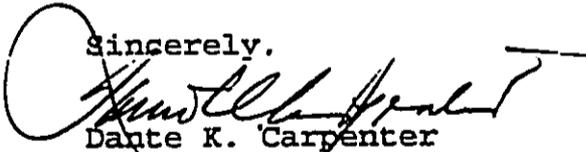
Re: Community Plan Amendment and Phase 1 Project District
Amendment Applications for Kula Lodge & Restaurant,
I.D. No. 93/CPA-004, 93/EA-011 (TMK: 2-3-22:87)

Dear Mr. Miskae:

Thank you for the opportunity to review the above-referenced applications. At this time, the Office of Hawaiian Affairs has no concerns with this project.

If you have any questions please contact Linda Delaney, Land and Natural Resources Officer or Lynn Lee, EIS Planner at 594-1888.

Sincerely,


Dante K. Carpenter
Administrator

cc: Clayton H.W. Hee, Chairperson
Board of Trustees

BENJAMIN CAYETANO
GOVERNOR



KAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
SAM CALLEJO
GLENN M. OKIMOTO

95 MAY 25 12:26

DEPT. OF TRANSPORTATION
COUNTY OF MAUI
RECEIVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.6793

May 22, 1995

Mr. Brian Miskae
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Miskae:

Subject: Kula Lodge and Restaurant Expansion
I.D. No. 93/CPA-004, 93-EA-011
TMK: 2-3-22:87

Thank you for your transmittal of May 1, 1995, requesting our review of the Community Plan Amendment and Phase 1 Project District Amendment applications for the Kula Lodge and Restaurant expansion.

We do not anticipate the proposed project to have any significant adverse impacts on our state transportation facilities. Plans for any construction work within our highway right-of-way, however, must be submitted to our Highways Division for review and approval.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA
Director of Transportation

BENJAMIN J. CAYETANO
GOVERNOR



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-2452

RECEIVED
AUG 09 1995

CHRIS HART & PARTNERS
Landscape Architecture & Planning

August 7, 1995

Ms. Gwen Ohashi
Acting Planning Director
County of Maui Planning Department
250 S. High Street
Wailuku, Hawaii 96793

Attention: Ms. Ann Cua

Dear Ms. Ohashi:

Subject: Draft Environmental Assessment for Kula Lodge Restaurant
Expansion, Kula; TMK 2-3-22:87

Please consult with neighboring property owners and community groups and include documentation of the contacts in the final environmental assessment.

If you have any questions, please call Nancy Heinrich at 586-4185.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Gill".

Gary Gill
Director

GG/NH:kk

c: Fred Romanchack, Kula Lodge and Restaurant
Chris Hart, Chris Hart & Partners



September 22, 1995

Mr. Gary Gill, Director
Office of Environmental Quality Control
220 S. King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Gill:

Subject: Draft Environmental Assessment - Response to Comments
Kula Lodge and Restaurant Expansion (93/CP1-004, 93/EA-011)
TMK: 2-3-22:87, Kula, Maui, Hawaii

Thank you for commenting on the above referenced Application and Environmental Assessment.

The applicant presented the proposed project plans to the Upcountry Citizens Advisory Committee in 1993 during the Ten Year Community Plan Update Process. Our office contacted Kula Residents Steve Heller, Dick Mayer and Steve Sutrow prior to submittal of the subject application. In addition, an informational briefing was held for all property owners within 500 ft. of the property on Wednesday, September 20, 1995. Thus, the applicant has taken significant steps to consult with neighboring property owners and community groups.

Comments received during these meetings related primarily to immediate impacts on neighboring properties relating to noise, views, drainage, and traffic.

As noted in the Draft Environmental Assessment, the Kula Lodge Project District Ordinance (Chapter 19.75, MCC) establishes setback and landscape requirements in order to minimize impacts to neighboring properties. The building setback along the southern boundary is established at 50 feet, more than ten times the setback requirement that would be established for a business zoned property which abuts a residential district. A majority of the perimeter of the property has landscape planting in place which acts as a visual and noise buffer for surrounding properties. The landscape improvements were planted in 1988 to mitigate potential visual impacts from surrounding properties.

The revised expansion plan consolidates much of the existing uses into the proposed main lodge building, minimizing the impact on surrounding properties as compared to the original plans which consisted of detached bungalow type structures around the perimeter of the property. The original plans also situated a detached produce market fronting Halaeakala Highway. This use is proposed to be relocated in the Main Lodge as

LANDSCAPE ARCHITECTURE AND PLANNING

1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956

Mr. Gary Gill
9/22/95
Page 2

well. Relocating the lodging units into the proposed main lodge would also insulate guests from surrounding properties which have been substantially built out at urban densities.

Thank you once again for commenting on this project. If you have any additional questions please contact Mr. Rory Frampton of our office.

Sincerely,



for CHRISTOPHER L. HART
Landscape Architect - Planner

cc: Ann Cua, Planning Department
Fred Romanchak, Kula Lodge and Restaurant

DOCUMENT CAPTURED AS RECEIVED



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

210 Imi Kala Street
Suite 209
Wailuku, HI
96793-2100

95 MAY 10 7:23:35

DEPT OF AGRICULTURE
COUNTY OF MAUI
RECEIVED

May 9, 1995

Mr. Brian Miskae, Director
Planning Department
County of Maui
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Miskae,

Subject: Kula Lodge; TMK: 2-3-22:87
I.D. No. 93/CPA-004, 93/EA-011

I have no comment on the subject application.

Sincerely,

Neal S. Fujigawa
District Conservationist

MAUI
PLANNING
DEPT
BRIAN
GWEN
COLLEEN
CLAYTON
JULIE
BILL
SECRET
ASST
7/1/95



May 16, 1995

'95 MAY 18 12:19

DEPT OF PUBLIC WORKS
COUNTY OF MAUI
RECEIVED

Mr. Brian Miskae
Planning Director
County of Maui
Maui Planning Department
250 So. High Street
Wailuku, HI 96793

Dear Mr. Miskae:

Subject: Kula Lodge and Restaurant Expansion
93/CPA-004, 93/EA-011 (TMK: 2-3-022:87)

Thank you for allowing us to comment on the above subject:

In reviewing the information transmitted and our records, Maui Electric Company (MECO) at this time has no objections to the proposed project.

MECO encourages that the project's consultant meet with us as soon as practical so that we may plan for the project's electrical requirements.

MECO currently serves Kula Lodge off Haleakala Highway.

If you have any questions or concerns, please call Fred Oshiro at 872-3202.

Sincerely,

for 

Edward Reinhardt
Manager, Engineering

FO:rt

