

May 16, 1977

REF: HA-1/6/77-895  
Exp. Date: 7/5/77

Mr. Harold S. Masumoto  
Director of Administration  
University of Hawaii  
2444 Dole Street  
Honolulu, HI 96822

Dear Mr. Masumoto:

Subject: Conservation District Use Application for  
Governmental Use of a Portion of TMK 4-4-15: 1,  
at Hale Pohaku, Mauna Kea, Hamakua, Hawaii

At its meeting of May 13, 1977, the Board of Land and Natural Resources approved your application subject to the following conditions:

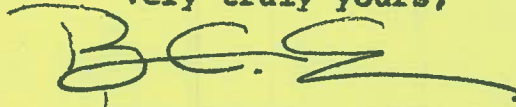
1. That the applicant comply with all applicable statutes, ordinances, rules and regulations of the Federal, State and County governments, and applicable parts of Section 2C of Departmental Regulation No. 4;
2. That the applicant shall include in its contracts to be awarded for construction of IRTF facilities the provision to indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
3. Other terms and conditions as prescribed by the Chairman;
4. In the event unanticipated historical or archaeological remains are encountered by the effectuation of the proposed use, the applicant shall immediately contact the Historic Preservation Office at 548-6408; and

Mr. Harold S. Masumoto  
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5. That the applicant will faithfully comply with the policies and procedures of the Mauna Kea Plan as approved and adopted by the Board of Land and Natural Resources.

Should you have questions on any of these conditions, please contact our Planning Office at 548-7837.

Very truly yours,



CHRISTOPHER COBB  
Chairman of the Board

cc: Mr. Larry Mehau  
Mrs. Mildred Yamamoto  
Office of Environmental  
Quality Control  
Environmental Quality  
Commission  
Department of Health  
COH/Planning Department

bcc: Division of Fish & Game  
Division of Forestry  
Division of Land Management  
Division of State Parks  
Historic Sites Office  
Natural Area Reserves System

LB:eyo

W. Y. Thompson, Chairman

August 4, 1977

REF: HA-1/6/77-895

MEMORANDUM

TO: Mr. Harold S. Masumoto, Director of Administration  
University of Hawaii

FROM: Edgar A. Hamasu, Deputy to the Chairman  
Department of Land and Natural Resources

SUBJECT: Renovation of Existing Buildings at Hale Pohaku,  
Phase II

Thank you for your memorandum of July 27, 1977 in which you request that Land Board approval of May 13, 1977 be modified such that the approval be granted for renovation and modification instead of demolition and replacement.

Inasmuch as Board action has occurred on this Conservation District Use Application, it will be necessary to return to the Board with your request for modification. We hope to place it on the agenda for the Board's August 26, 1977 meeting and will notify you of Board action as soon as it occurs.

If you have any further questions, please contact Roger C. Evans of my Planning Office at 548-7837.

*Edgar A. Hamasu*  
EDGAR A. HAMASU

*RCE*  
RCE:eyo



DIVISIONS:  
CONVEYANCES  
FISH AND GAME  
FORESTRY  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

~~DEPARTMENT OF LAND AND NATURAL RESOURCES~~

P. O. BOX 621

HONOLULU, HAWAII 96809

File No. HA-1/6/77-895  
Expiration Date 7/5/77

May 13, 1977

Board of Land and  
Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Gentlemen:

Conservation District Use Application for  
Governmental Use at Hale, Pohaku,  
Mauna Kea, Hamakua, Hawaii

APPLICANT: University of Hawaii  
2444 Dole Street  
Honolulu, HI 96822

USE REQUESTED: Interim Mid-Level Facilities

TMK: Portion of 4-4-15:1

AREA OF PARCEL: 63,922.3 Acres

AREA OF USE: 10.0 Acres, Approximately

SUBZONE: General Use

DESCRIPTION OF AREA:

Hale Pohaku, an existing complex of buildings and facilities, is located 34 miles northwest of Hilo on the southern face of Mauna Kea at elevations ranging between 9225' to 9300'. The lands occupied by such improvements are owned by the State of Hawaii.

The Hale Pohaku area is within the Mauna Kea Forest Reserve and Game Management area and situated adjacent to the Mauna Kea Science Reserve which generally includes all mauka portions of Mauna Kea beginning at about the 12,000' elevation.

Exhibit 3, attached, shows the location and explains the use of each structure at Hale Pohaku. As can be seen, in addition to the building maintained and managed by Divisions of State Parks and Forestry, there are facilities now used to support the operations of three University of Hawaii Telescopes (2-24" and 1-88"), as well as the construction of the Canada-France-Hawaii Telescope (CFHT) and the United Kingdom Infrared Telescope (UKIRT).

ITEM H-1

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At Hale Pohaku, electricity is provided by diesel-powered generators housed in building #7. Two propane gas storage tanks, each with a capacity of 2,000 gallons, are utilized for hot water heaters and kitchen facilities.

Buildings 1, 2, 3, & 4 are presently served by three water tanks with a total capacity of approximately 9,500 gallons, while buildings 8, 9, 10 are provided water from two 12,000 gallon water tanks (above-ground swimming pools).

Sewage is disposed of in cesspools as shown in Exhibit 3 and solid waste is collected and periodically trucked to Hilo for disposal.

Ground slopes in the area vary. In general, the west half of the site varies from 8 - 10% while on the eastern half slopes increase to 40%.

There are no historical/archaeological sites within the project area. However, Keanakakui Adz Quarry lies about 4 miles up slope at the 12,400' elevation and approximately 2000' west of the Summit road.

Since the Summit Road passes through the project area, hikers, hunters, motorcyclists, skiers, sightseers, and other recreational enthusiasts are seen traveling to the top of Mauna Kea, Lake Waiau, the Game Management Area on to see other natural features of the Mauna Kea environment.

#### DESCRIPTION OF PROPOSED USE:

The applicant proposes to demolish and replace two existing dilapidated buildings presently occupied by the U. H. Institute for Astronomy. The existing facilities are a 14-bed dormitory with bath and an accessory building serving as kitchen/dining/lounge. The new buildings will include an 8-bed dormitory with bath and lounge and a 14-bed dormitory with bath. Arrangements will be made to have two other mess halls, currently in operation, to accommodate everyone residing at Hale Pohaku.

The proposed buildings will be similar in construction to the buildings each will replace and will provide base camp facilities for construction workers of the Infrared Telescope Facility (IRTF) and new living quarters for observers and support staff of the U. H. Institute of Astronomy. Each building will be one-story, wood frame with wood flooring and corrugated metal roofing. Exterior walls and interior partitions will be stud-wall construction with insulation for sound and temperature control.

#### COMMENTS RECEIVED TO DATE:

Dept. of Health: No objections as no major adverse environmental effects are foreseen from the project.

Hawaii County Planning Dept: There are no objections to the proposal as the structures will be replacing substandard buildings. No significant adverse environmental impacts are anticipated since the same building sites will be used.



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Fish & Game: Approval is recommended. Since the project involves replacement of facilities, on site, with no additional clearing of trees or excavation; impacts on wildlife will be minimal.

Forestry: The proposed site of use is within the area of State Parks responsibility and does not directly affect Forestry. While there is no objection to the replacement of the older buildings, the following comments reflect Forestry's concerns regarding the Hale Pohaku:

1. Use of Hale Pohaku by the astronomy people have deprived the people of Hawaii of a highly desirable recreational area.
2. As recollected, the facilities to be replaced were to have turned over to DLNR (State Parks) for eventual public use.
3. Will construction of the new buildings mean continued denial of the area to public use?
4. The proposed use mentions "new living accommodations for observers and support staff." What happened to the proposed permanent mid-level facilities? Has this idea been abandoned? Are the buildings to be constructed for only temporary use until a mid-level facility is built?

Land Management: The application proposes "Interim Mid-Level Facilities" at Hale Pohaku, the connotation being that the use is temporary, to serve during the the construction period of the infrared telescope facility. On reading the description of the proposed use, the impression is that the U. S. also intends to use the facilities as permanent living accommodations for "observers and support staff of the U. H.'s Institute of Astronomy."

To date, there has been no Board decision that Hale Pohaku will serve as a permanent mid-level facility for the U. H. and others using the telescopes. There is no objection to the demolition of the existing dilapidated buildings and the construction of permanent buildings. However, it is cautioned that should approval be granted it does not constitute a commitment of Hale Pohaku as the permanent mid-facility site.

State Parks: While there are no particular objections to the proposal, the question is raised concerning the future use of the Hale Pohaku area and a time table for such uses. Before any additional buildings are built/renovated, it is felt that the Mauna Kea Plan should be approved. This is especially necessary for construction which involves the permnent needs of a user, such as University Dorm facilities. The plan should determine the future uses of the Hale Pohaku area and the general location of such uses. Until the plan is finalized, comments on the proposal would be difficult.

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Historic Sites Office: The proposed undertaking will have no effect upon any known Historic or Archaeological Site on or likely to be eligible for inclusion on the Hawaii and/or National Registers of Historic Places. There are no reservations for the project to proceed.

In the event that any unanticipated sites or remains are encountered, the applicant is to contact this office immediately.

ANALYSIS:

The use is permitted under Section 2B(1)(e) of Departmental Regulation No. 4. In its assessment of the proposed action in compliance with EIS requirements, the applicant determined that the proposed action, which is essentially that of replacing buildings on the same site, qualifies as an exempt action pursuant to Section 1:33, Chapter 343, HRS. Because no significant adverse environmental impact is anticipated, no EIS would be required.

Staff after reviewing the information supplied by the applicant, is of the understanding that the structures will be initially used to house IRTF construction workers, and later, provide living accommodations for observatory personnel and support staff. The new facilities will provide a location needed to acclimatize personnel since, according to U. H. Astronomy Staff experience, acclimatization at an elevation of 8000' above sea level for about 12 hours is necessary to be able to function satisfactorily at Mauna Kea's Summit of 13,700' elevation where the observatories and telescopes are located.

Additionally, the new facilities will minimize the need for observatory staff to commute daily from Hilo to the summit, a distance of 42 miles and travel time of about 2 hours. From Hale Pohaku to the summit is eight miles of fairly steep road.

The development schedule for the IRTF facilities at Hale Pohaku is as follows:

Design	January, 1977
Start Construction	June, 1977
Complete Construction	December, 1977

Construction of the observatory facilities at the summit are as follows:

State Construction	March, 1977
Complete Concrete Work	November, 1977
Complete Dome Work	November, 1977
Complete Telescope Installation	December, 1978

The Land Board is apprised that the buildings to be replaced were the subject of an earlier application (HA-5/13/76-804) filed by the Dept. of Accounting and General Services for the University of Hawaii. Approval was sought and granted on July 23, 1976 to correct building code violations in compliance with Hawaii County requirements.

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Two other alternatives were considered and discussed by the applicant before a decision was reached to build replacement structures. According to the applicant, while these alternatives involved less costs, \$220,000 and 205,000 respectively, the pending request best satisfies the base camp requirements for astronomy scientists and support personnel.

Other reasons stated were:

1. The two existing buildings were built in 1967 to last perhaps, three or four years--long enough to complete the construction of the observatory building at the summit. The buildings have been in use for approximately 10 years now and accommodations will be needed for up to five more years until the permanent mid-level facilities are designed and constructed.
2. The County of Hawaii Building Department cited the University for non-compliance with the Uniform Building Code (UBC) in July, 1974 and again in May, 1976. Since then, the University through the Department of Accounting and General Services (DAGS), initiated a project to renovate the buildings and electrical and fire systems to correct the deficiencies. However, the estimated cost of the work necessary to make the buildings conform was in excess of \$100,000.
3. The IRTF building at the summit is presently scheduled to begin construction in March 1977. At that time, support facilities at Hale Pohaku will be required for the construction workers.
4. In order to avoid duplication of kitchen/dining facilities, arrangement will be made to fully operate both the UKIRT and CFHT facilities for all residents at Hale Pohaku.
5. The IRTF project has budgeted \$85,000 to provide accommodations for its construction workers. This sum will be payable in more or less equal increments over a period of approximately 2 years -- the length of time required to complete the IRTF building.

Water requirements due to the increase of people at Hale Pohaku will be met by more frequent delivery of water supply with the 5,000 gallon tank truck. Existing generator will be adequate to satisfy the power requirements of the new facilities. Existing cesspool will be adequate to handle the sewage disposal.

NASA is expected to cover its share of the cost of room and board for its construction workers, although the applicant is responsible to ensure accommodations are available. The \$278,000 cost will be shared as follows:

Act 226, SLH 1976, G-80	\$193,000
NASA	85,000

With Land Board approval, replacement of the structures is properly the applicant's option to exercise, allowable within the provisions of Rev. Permit S-4440 covering an undefined 13,000 sq. ft. of land at Hale Pohaku.



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Answers to the queries posed by divisional staff with regards to the permanency of the replacement facilities and the commitment of Hale Pohaku for mid-level facilities in support of astronomy activities at the summit are contained within the Mauna Kea Plan, adopted by the Board of Land and Natural Resources on February 11, 1977.

Amongst the policies and procedures reviewed and accepted by the Land Board, the Mauna Kea Plan also designates Hale Pohaku for location of mid-level facilities for necessary research personnel for the summit, a central point for management of Mauna Kea, and a day-use visitor destination point, and primitive overnight camping facilities. The document goes on to state that "The selection of this location is based on the need for altitude acclimatization for astronomical research staff and on the desire to consolidate development for reasons of aesthetics and efficiency". Development at this location will, however, remain at a level in accordance with minimum research and public needs.

RECOMMENDATION:

Approval with the following conditions:

1. That the applicant comply with all applicable statutes, ordinances, rules and regulations of the Federal, State and County governments, and applicable parts of Section 2C of Departmental Regulation No. 4;
2. That no development occur within the Special Management Area unless approval is first received from the authority in accordance with the procedures adopted pursuant to Section 205A, Act 176, SLH 1975;
3. Inclusion of Standard Hold Harmless clause for all contracts to be awarded for construction of IRTF facilities;
4. Other terms and conditions as prescribed by the Chairman;
5. In the event unanticipated historical or archaeological remains are encountered by the effectuation of the proposed use, the applicant shall immediately contact the Historic Preservation Office at 548-6408; and
6. That the applicant will faithfully comply with the policies and procedures of the Mauna Kea Plan as approved and adopted by the Board of Land and Natural Resources.

Respectfully submitted,

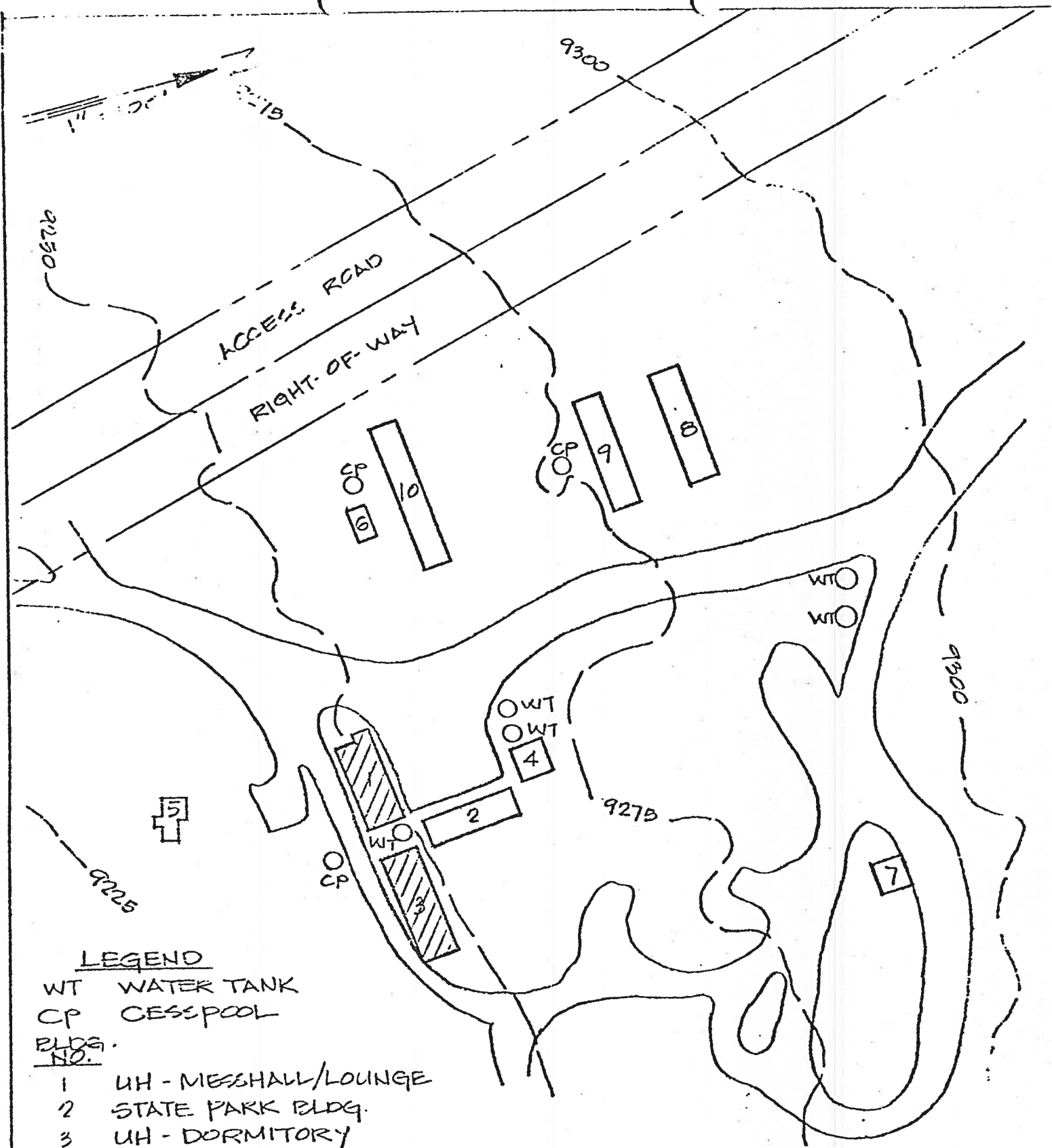


ROGER C. EVANS  
Staff Planner

APPROVED FOR SUBMITTAL:



CHRISTOPHER COBB, Chairman  
of the Board

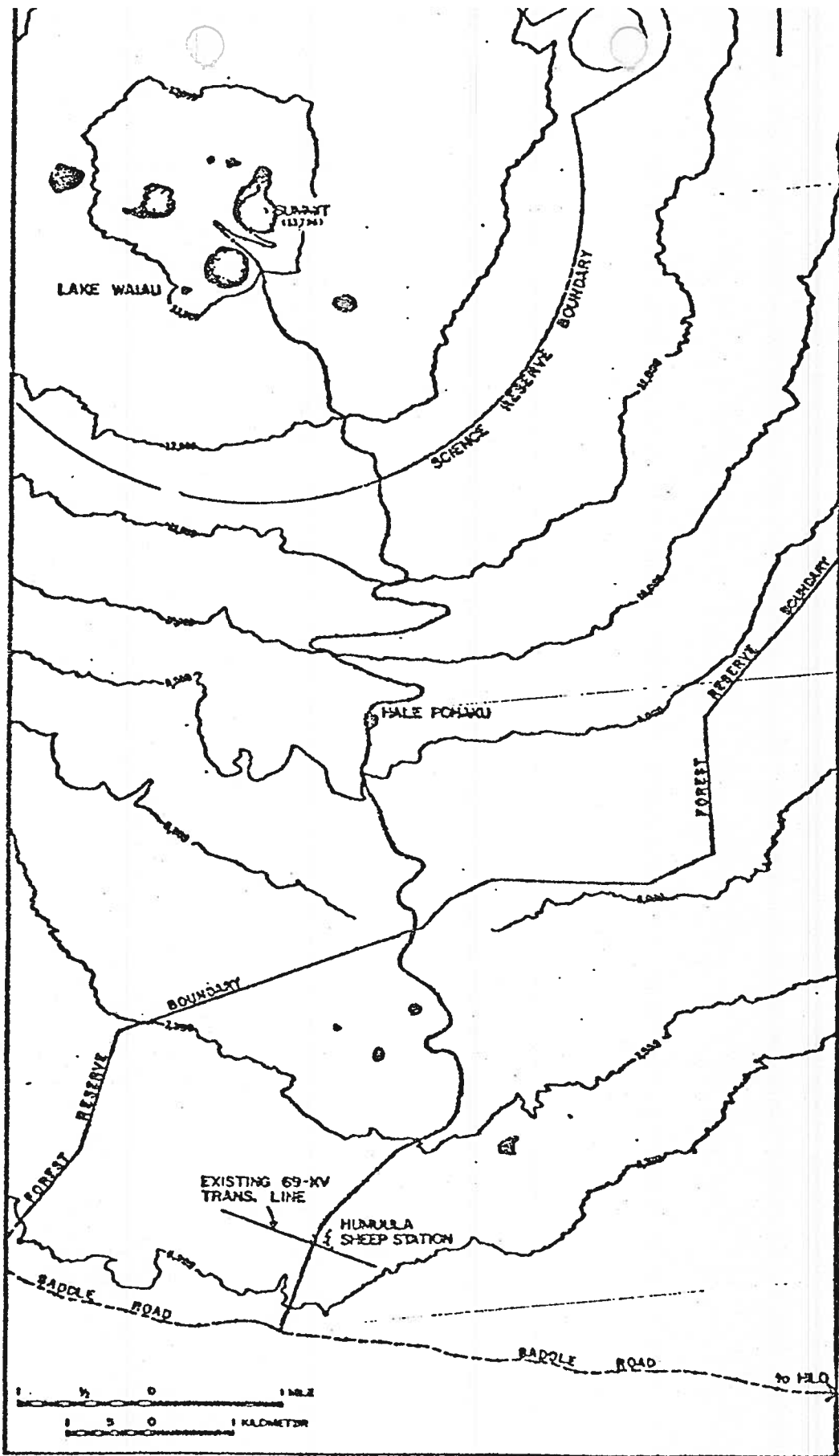


LEGEND

- WT WATER TANK
- CP CESSPOOL
- BLDG. NO.
- 1 UH - MESSHALL/LOUNGE
- 2 STATE PARK BLDG.
- 3 UH - DORMITORY
- 4 STATE PARK BLDG.
- 5 STATE FORESTRY BLDG.
- 6 STATE PARK RESTROOM
- 7 UH - GENERATOR BLDG.
- 8 CFHT - MESSHALL/LOUNGE
- 9 CFHT - DORMITORY
- 10 UKIRT - MESSHALL/DORMITORY

HALE POHAKU  
EXISTING FACILITIES

EXHIBIT 3



6.3 MILES (PAVED) X 6.5 MILES (UNPAVED)  
 MAUNA KEA OBSERVATORY ACCESS ROAD

SADDLE ROAD TO MAUNA KEA SUMMIT

EXHIBIT 2