



BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810

RECEIVED
LETTER NO. PM-1197.9

OCT 11 1999

'99 OCT 13 P3:23

OFFICE OF
QUALITY CONTROL

Ms. Genevieve Salmonson
Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Finding of No Significant Impact for
DOH Residential Children's Facility
Hilo, South Hilo District
Island of Hawaii, Hawaii
D.A.G.S. Job Nos. 11-20-2534 & 11-20-2553

The State Department of Accounting and General Services (DAGS) has reviewed the comments received during the 30-day public comment period which began on August 8, 1999. Concerns regarding site location selection and construction-related impacts are addressed in the Final EA. No other significant concerns were raised during the review period.

As described in the Final EA, the site selection and design were made in consultation with other agencies, including the Department of Land and Natural Resources, Land Division, to ensure that no significant negative impacts to water and air quality, flora and fauna, cultural and scenic resources, land use, and community well-being will result from the proposed project.

DAGS has therefore determined that this project will not have significant environmental effects and hereby issues a finding of no significant impact. Please publish this notice in the October 13, 1999, *OEQC Environmental Notice*.

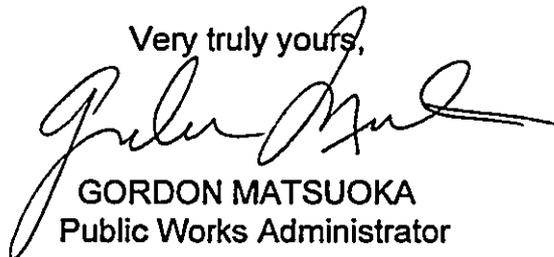
We have enclosed a completed *OEQC Environmental Notice Publication Form* and four copies of the Final EA.

137

Ms. Genevieve Salmonson
Letter No. PM-1197.9
Page 2

Please contact Norman Sahara of our Project Management Branch at
586-0465 if you have any questions.

Very truly yours,



GORDON MATSUOKA
Public Works Administrator

DJ/si
Encl.

c: Franklin Wong & Associates w/o encl.
R. M. Towill Corp. (Chester Koga) w/o encl.

1999-10-23-HA-FEA - (rest of title as
① and ②)

OCT 23 1999

FILE COPY

Final Environmental Assessment

① Residential Children's Facility
① Hilo, South Hilo District, County of Hawaii
TMK 2-4-57: 01

DAGS Job Nos. 11-20-2534 & 11-20-2553

October 1999

Prepared for:

Department of Health and
Department of Accounting & General Services
State of Hawaii
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810-0119

Prepared by:

R.M. Towill Corporation
420 Waiakamilo Street
Honolulu, Hawaii 96817
RMTTC Ref No. 1-18483-OE

Final Environmental Assessment

**RESIDENTIAL CHILDREN'S FACILITY
Hilo, South Hilo District, Island of Hawaii
TMK 2-4-57: 01**

DAGS PROJECT NOS. 11-20-2534 & 11-20-2553

October 1999

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R.M. Towill Corporation
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DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
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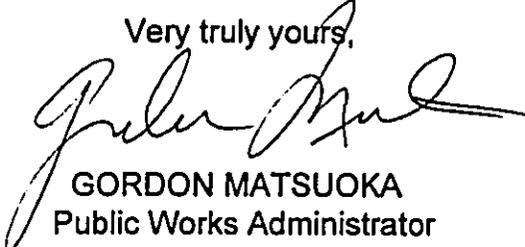
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PROJECT SUMMARY

Project	Hilo Residential Children's Facility
Proposing Agency	State of Hawaii, Department of Accounting and General Services State of Hawaii, Department of Health
Accepting Authorities:	State of Hawaii, Department of Accounting and General Services
TMK:	2-4-57: 01
Location:	Hilo, South Hilo District, County of Hawaii 19°42'25" latitude, 155°04'49" longitude (approximate).
Project Area:	4,000 square feet
EA Preparer	R. M. Towill Corporation 420 Waiakamilo Road, Suite 411 Honolulu, Hawaii 96817 Phone: (808) 842-1133 Facsimile: (808) 842-1937
Existing Land Uses:	Vacant 11.126-acre lot. Other portions to be developed for use by County are being looked at by other agencies.
Proposed Action:	The State of Hawaii Department of Accounting and General Services (DAGS), on behalf of the Department of Health (DOH), proposes to develop a Residential Children's Facility, facilities for the training, treatment and housing of developmentally disabled children and adolescents.
Required Permits	A Plan Approval must obtained prior to securing a building permit for the construction of the proposed facility.

CHAPTER 1
PURPOSE AND NEED FOR ENVIRONMENTAL ASSESSMENT

1.1 PROJECT OVERVIEW

The State of Hawaii Department of Accounting and General Services (DAGS), on behalf of the Department of Health (DOH), proposes to develop the Residential Children's Facility. The Residential Children's Facility will provide a residential housing facility for children and adolescents with severe emotional needs. The central location of the new facility within a community setting provides an opportunity to integrate the center's programs with the surrounding high school, university, businesses, and community. The proposed Residential Children's Facility includes a multi-purpose space, staff office/conference room, work area, five bedrooms, two bathrooms, storage room, kitchen, dining area, and open lanai at the front and rear of the facility. Figure 1-1, Project Location, shows the project location and surrounding area.

Completion of the project will involve evaluation of environmental conditions and existing land uses to determine the overall impact of construction activities and the impacts of the new facility on nearby community activities and land uses. Additionally, community input is being sought early on in the development process to identify non-design issues in order to resolve them during the planning and design stage. All project activities will be assessed for compliance with State and County policies and land use plans.

1.2 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

State of Hawaii lands and funds will be used for the proposed development. This project, therefore, is subject to preparation of environmental documentation per requirements of Chapter 200, Title 11, Hawaii Administrative Rules (HAR), and Chapter 343, Hawaii Revised Statutes (HRS). This EA will address the limited environmental impacts anticipated from development of the proposed project. This Final

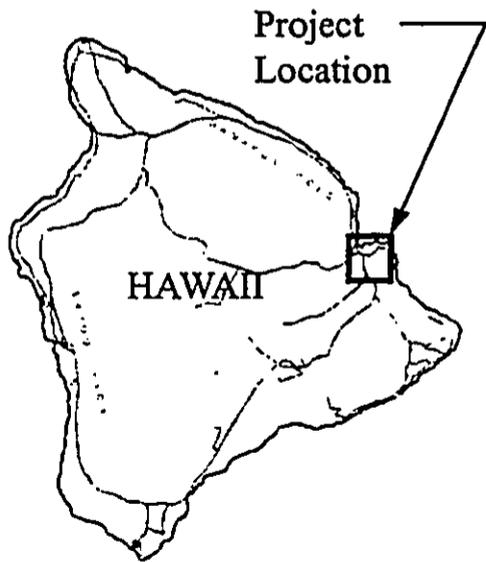
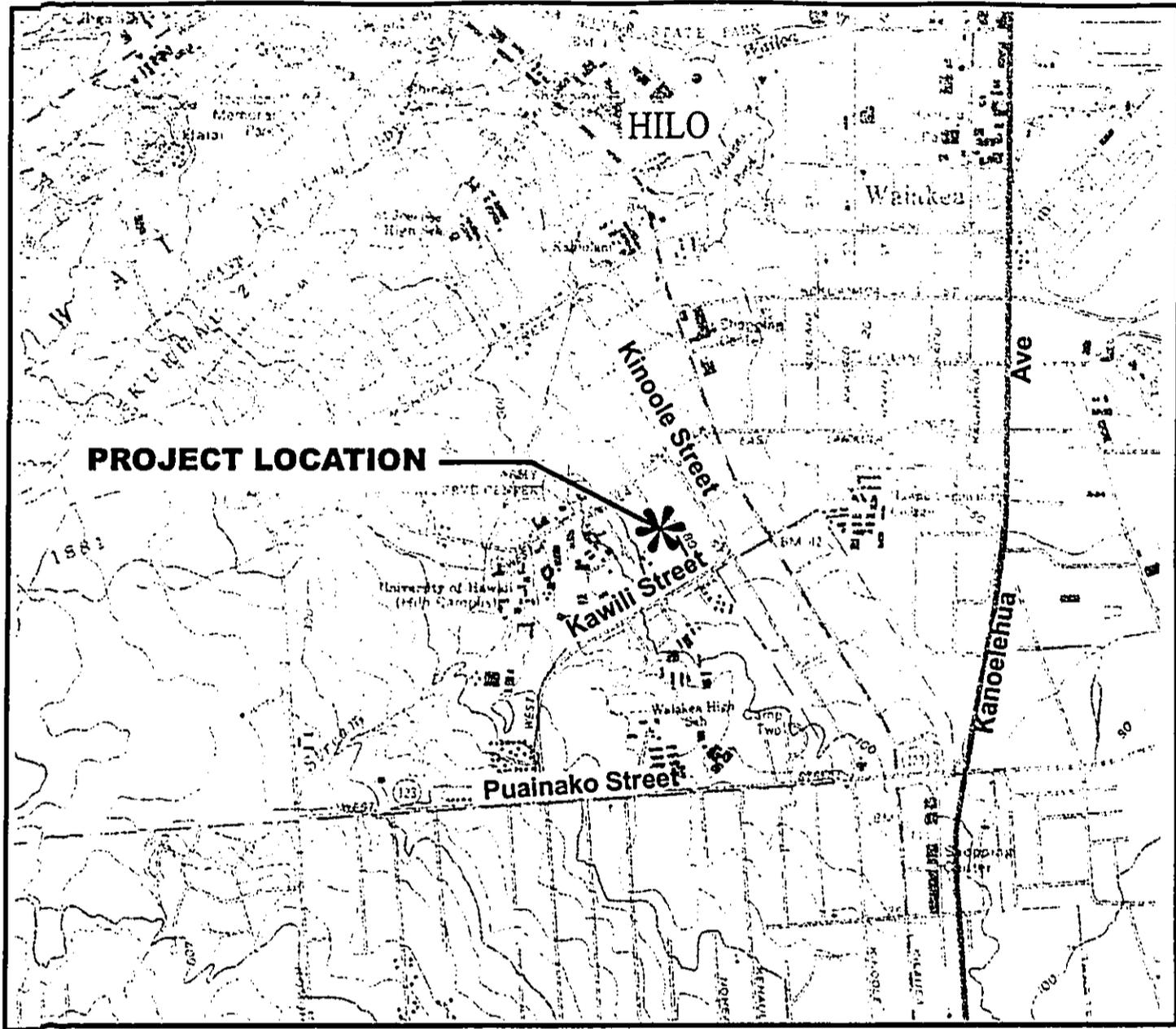
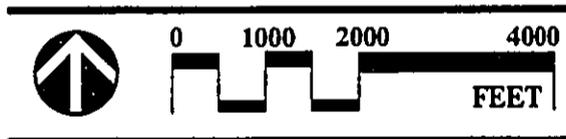


Figure 1-1
PROJECT LOCATION



Department of Health
Residential Children's Facility
South Hilo District, Island of Hawaii

R. M. TOWILL CORPORATION
October 1999

Environmental Assessment and accompanying Finding of No Significant Impact (FONSI) is being filed by DAGS as part of the requirement for processing an EA.

1.3 PURPOSE AND NEED FOR THE PROJECT

The State of Hawaii, Department of Education (DOE) accommodates the needs of certain developmentally disabled minors until the age of 18 years of age. The Residential Children's Facility will have living space for five residents, a cook and case management personnel.

The proposed Residential Children's Facility will provide treatment and counseling for adolescents who are moderately to severely emotionally disabled. This facility will help to provide additional capacity for treating children and adolescents with severe emotional needs within the State of Hawaii. The State, currently lacking sufficient capacity to provide Residential Treatment Programs for children and adolescents with severe emotional needs, relies on community based facilities located both in Hawaii and the mainland to provide this service. Even with the utilization of private facilities, the in-state capacity is not adequate to accommodate current and future needs which causes a continued reliance on mainland facilities.

The proposed facility will help to reduce, if not eliminate, the need for placing children and adolescents with severe emotional problems in facilities on the mainland. The proposed facility will also help to bring the state into compliance with sections of the Felix Consent Decree and Implementation Plan calling for the placement in the least restrictive environment and consonant with the needs of the child and family. This facility would allow the state to return the children and adolescents from current placements on the mainland and meet current and projected needs for Residential Treatment Facilities for children and adolescents with severe emotional needs.

1.4 ALTERNATIVES

As part of the analysis for this project, several alternatives were considered to address

the need for improving the facilities. The alternatives evaluated include the no action alternative, the delayed action alternative, and the proposed project.

1.4.1 Alternative 1: No-Action

State and Federal legislation require that a "no-action" alternative be considered to serve as a baseline against which potential actions can be measured. The no-action alternative would result in no effort made to meet the existing demand for residential treatment services under the Felix-Waihee Consent Decree. This alternative would deprive the children and adolescents of Hawaii who have severe emotional needs, a place for residential treatment within their own community. Without this facility within a local network of family and friends, these children and adolescents are forced to move to the mainland for fundamental treatment and development.

Under this option, environmental impacts resulting from construction activities would be averted, and facility development costs would be spared however, monetary penalties would be assessed according to Federal laws if the court imposed deadlines are not met. According to the Felix Consent Decree, the state would incur severe penalties if compliance with Federal laws as the Individuals With Disabilities Act and Section 504 of the Rehabilitation Act were not met by June 30, 2000. Due to the potential negative emotional and developmental impacts of displacing children and adolescents as well as the monetary penalties assessed, this alternative was rejected.

1.4.2 Alternative 2: Delayed Action

Under the delayed action alternative, the proposed Facility would be built at a later date. By delaying action, this property may be unavailable at a later time and additional resources would be required to secure a new property that meets size and operational requirements. Under this alternative, resource expenditures for the development of the Facility would be averted in the short-term, however project activities would ultimately incur higher development costs to resources due to inflation or extended site selection processes.

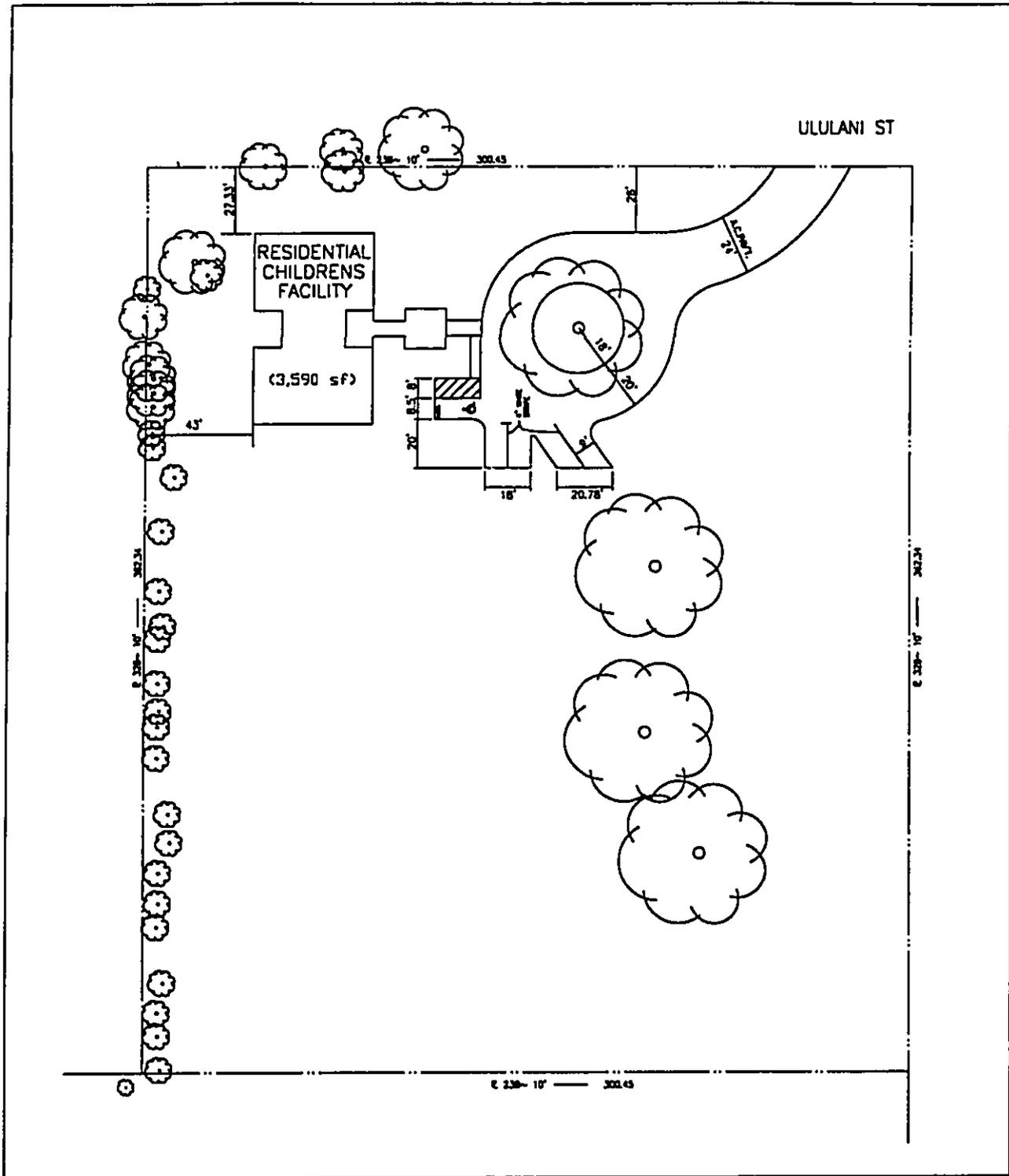
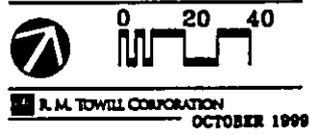


Figure 1-2
SITE PLAN



R. M. TOWILL CORPORATION
OCTOBER 1999

The delay of action would also result in penalties assessed to the state when the court appointed deadlines are not met. As with the No Action Alternative, the state would incur severe penalties if compliance with Federal laws as the Individuals With Disabilities Act and Section 504 of the Rehabilitation Act were not met by June 30, 2000.

This alternative will also generate environmental outcomes similar to the Preferred Alternative to develop the proposed Residential Children's Facility. Due to the potential cost of acquiring a new site, monetary penalties being assessed and similar environmental impacts as the proposed project, this Delayed Action Alternative was rejected.

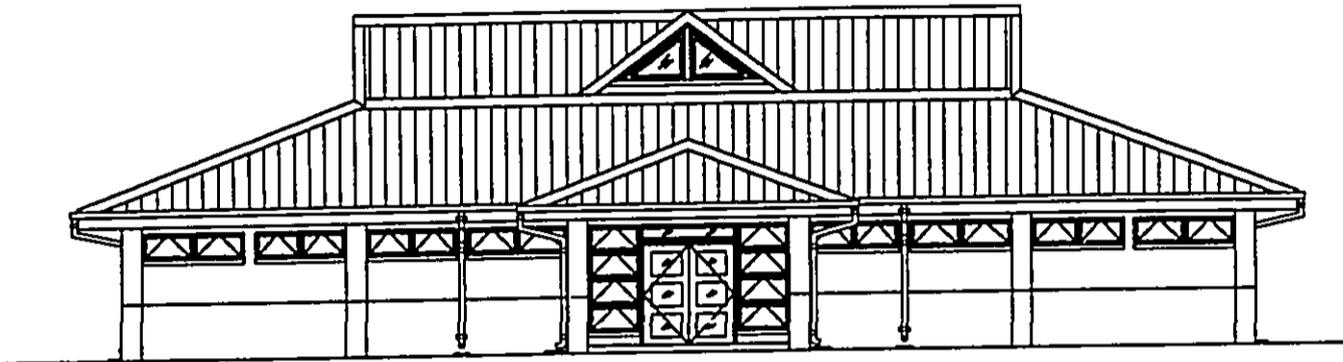
1.4.3 Alternative 3: Proposed Residential Children's Facility

Under this alternative, a new facility would be constructed on a 4,000 square foot vacant portion of the 11.126-acre State-owned parcel located near the University of Hawaii at Hilo. The Residential Children's Facility includes a multi-purpose space, staff office/conference room, work area, five bedrooms, two bathrooms, storage area, kitchen, dining area, and lanai at the entry and rear of the facility, Figure 1-2, Proposed Site Plan, depicts the layout of the proposed facility.

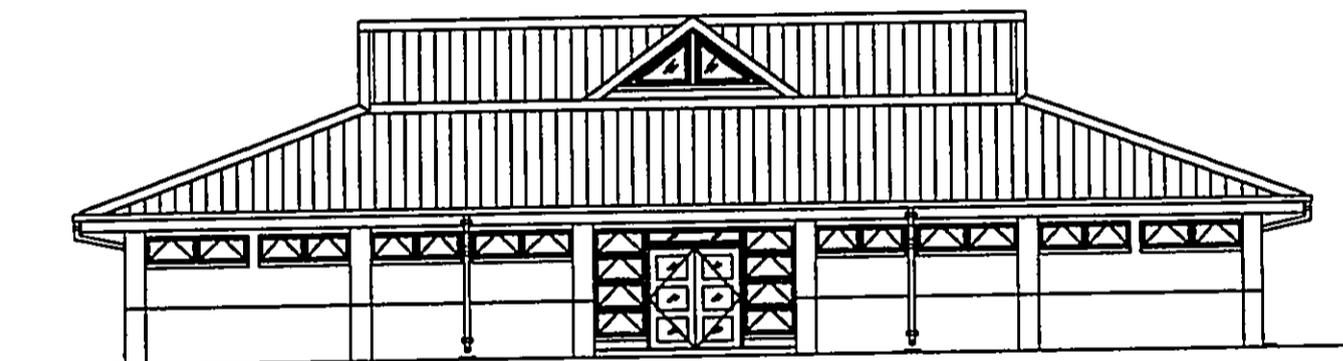
The Children's Facility will be designed for housing children and adolescents with severe emotional needs and consist of a multi-purpose area, staff office/conference room, work area, five bedrooms, two bathrooms, storage area, kitchen, dining area, and lanai at the entry and rear of the facility. The multi-purpose area will provide space for group activities, meetings, and entertainment for all residents and visitors. The staff office and work area will provide separate areas for counseling and private visits with family or friends. The kitchen will be designed for full-service meal preparation by staff personnel.

Access to the site would be via Ululani Street, which enters and exits the site at the north-east corner. As shown in the elevation drawings (Figure 1-3 and Figure 1-4), the proposed Residential Children's Facility will be unobtrusive with a final height of no more than 23' from finished grade.

The proposed location was selected for its proximity to a neighborhood community setting which assist in treatment and development of the patients and physical site characteristics including minimal impacts to vegetation, topography, visual view plains and existing utilities.



Front Elevation

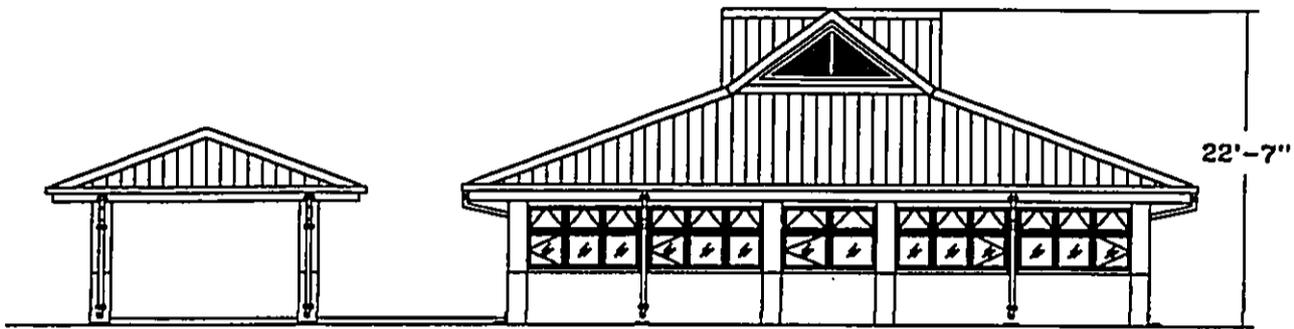


Rear Elevation

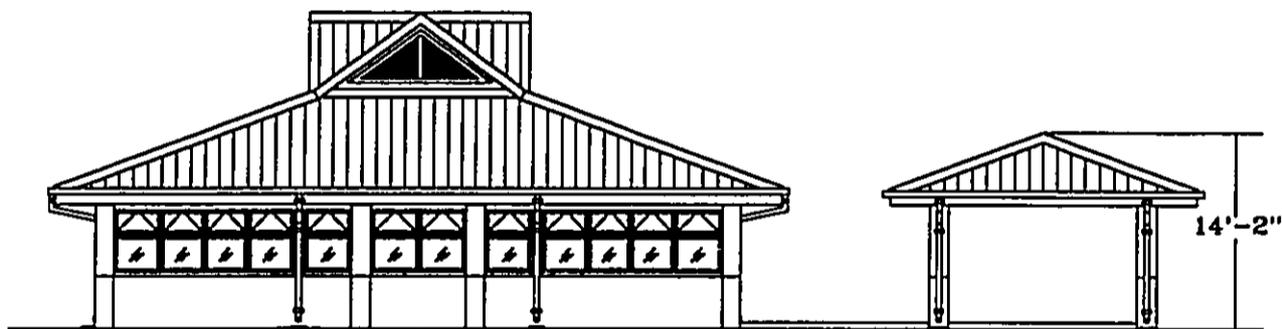
Figure 1-3
Elevations



R. M. TOWILL CORPORATION
OCTOBER 1988



Left Elevation



Right Elevation

Figure 1-4
Elevations



R. M. TOWILL CORPORATION

OCTOBER 1999

CHAPTER 2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SITE CHARACTERISTICS

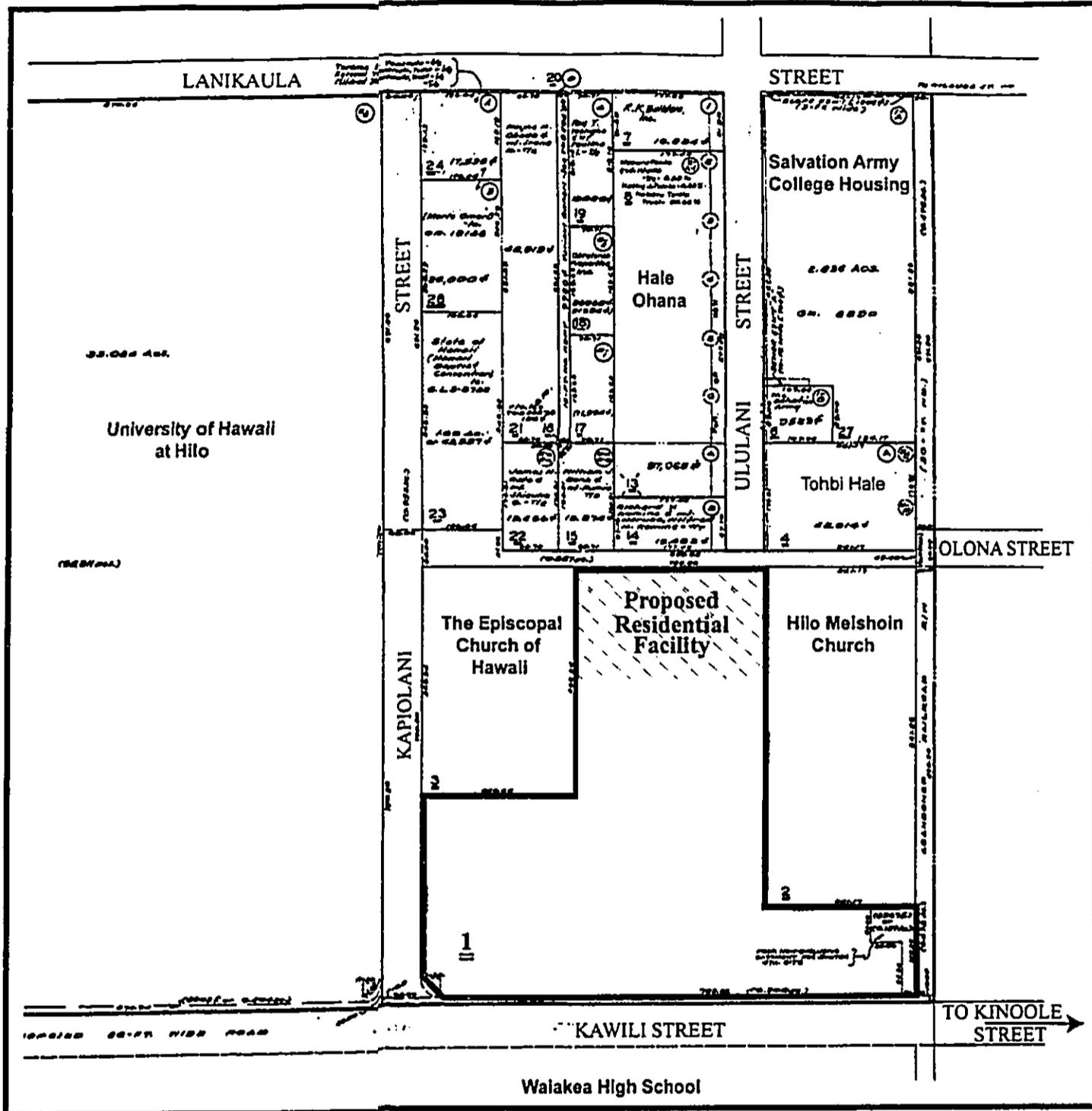
The proposed project location is in the City of Hilo, South Hilo District, Island of Hawaii. The project site is a 4,000 square foot portion of an 11.126-acre State-owned parcel located near the University of Hawaii at Hilo in the block bounded by Kinoole, Kawili, Kapiolani, and Lanikaula Streets (TMK 2-4-57:01). The site is currently under the jurisdiction of the Department of Land and Natural Resources, Division of Land Management. Pending completion of permits and environmental documentation, the site will be transferred to the Department of Health by Executive Order.

The site is vacant. Ululani Street dead-ends at the site's northern boundary. Along Ululani Street, there are single family dwellings, Hale Tohbi (36-unit student rental housing), and Hale Ohana (96-unit low-income rental housing). See Figure 2-1, Tax Map Key Map.

2.2 FACILITY CHARACTERISTICS

The proposed Residential Children's Facility is a single story complex with a multi-purpose area, staff office/conference room, work area, five bedrooms, two bathrooms, storage area, kitchen, dining area, and lanai at the entry and rear of the facility. The parking for the facility will be located on the south side of the circular drive entrance. All parking for the proposed project will comply with the County zoning and building code regulations.

The entry drive will access a circular driveway with a covered drop-off area at the main entrance. Landscaping will be used to enhance the aesthetics of the facility grounds, mitigate heat load on the buildings, and provide shade for clients, staff, and visitors to the Center. Two large banyan trees that presently exist on site will be removed to avoid future foundation damage caused by root growth. The facility will be designed to



Department of Taxation
TAXATION MAPS BUREAU
 STATE OF HAWAII
TAX MAP

THIRD TAXATION DIVISION

ZONE	SEC.	PLAT
2	4	57

Figure 2-1
TAX MAP KEY MAP



NOT TO SCALE

Department of Health
Residential Children's Facility
 South Hilo District, Island of Hawaii

R. M. TOWILL CORPORATION
 October 1999

maximize the natural daylight and tradewinds of the area by using roofing styles and building surfaces that improve radiant and/or insulation.

2.3 CONSTRUCTION ACTIVITIES

Construction activities will include mobilization, clearing and grading, construction of the facilities, demobilization, restoration, and landscaping.

Mobilization of equipment, materials, and workforce shall occur on an as needed basis, in schedule with the phases of construction. Construction activities require that staging areas be established on-site. Prior to mobilization, the project contractor will identify staging and stockpiling areas for construction equipment and materials.

Staging and stockpile areas shall be prepared as necessary with appropriate discharge pollution prevention features, refuse containment, and parking areas for workers. During mobilization, ground disturbance shall be held to the minimum area necessary to accommodate the heavy equipment and materials required for construction activities.

Vegetation and debris will be cleared from the 2.5-acre site to accommodate staging and construction. Two large Chinese banyan trees, and numerous small trees of various species will be removed during clearing activities (see Section 3.6.1, Flora). The site will be graded in preparation for foundation work and paving. The project will retain existing topsoil and maintain soil health by clearing only the areas reserved for the proposed project.

Upon completion of construction activities, the contractor shall restore the project site as much as possible to pre-project conditions:

- All construction-related material, including excavated material, fill material, and refuse shall be removed from the project site and disposed of properly by the contractor.

- All construction equipment shall be removed from the project site promptly after construction is complete.
- Any modifications to existing utilities, such as power lines or water sources, shall be repaired to their pre-existing condition.
- Roadways providing access to the site shall be cleared of construction debris and any damage from construction traffic will be repaired. Gates and/or fencing removed to provide access to the site shall be replaced and/or repaired.
- All areas damaged by construction staging shall be restored. Exposed ground areas shall be seeded or hydro-mulched as appropriate.

2.4 PROJECT SCHEDULE AND COST

Construction for the Children's facility is scheduled to begin in at the end of 1999 or beginning of 2000, and last approximately eight months. The preliminary construction cost estimate for the entire project will be approximately \$615,231. Funding for the projects will be provided by the State of Hawaii.

CHAPTER 3

ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION

This chapter assesses the environmental consequences of the proposed action described in Chapter 1. Potential impacts are described and evaluated. Mitigation measures that would eliminate and/or reduce potential adverse impacts are identified.

3.1 TOPOGRAPHY, CLIMATE, AND RAINFALL

3.1.1 Topography

The proposed project site is located approximately 1½ miles directly south of Hilo Bay's Beach Front Park at an elevation of 80 feet above mean sea level (msl). The site is relatively level, with a slight upward slope towards the south-west. No significant topographical features exist in the immediate area.

3.1.2 Climate

The climate of the Hilo area is characterized by abundant sunshine and abundant rainfall, relatively constant temperatures, and the infrequency of severe storms. The mean annual rainfall in the Hilo area is approximately 130 inches. Wind patterns in Hilo are sharply diurnal. Dominant easterly tradewinds prevail during the day (9 a.m. to 8 p.m.). In the evening (9 p.m. to 8 a.m.), cooler westerly winds sweep down the slopes of Mauna Loa. Since the proposed facility will be used primarily during the day, the critical wind direction affecting the site is the easterly direction.

Monthly temperatures in the project area, as recorded in Pauwela, are within the range of 78 degrees Fahrenheit mean temperature in August and 70 degrees Fahrenheit mean temperature in December. Temperatures of 80 degrees and higher are not uncommon throughout the year. (University of Hawaii 1983).

3.2 GEOLOGY AND HYDROLOGY

3.2.1 Soils

Soils at the project site are classified as OIaa extremely stony, silty clay loam, 0 to 20 % slopes (OID). In soils of this type, permeability is rapid, runoff is slow, and erosion hazard is slight. In terms of its structural characteristics, it has low bearing capacity, high compressibility, low shear strength, low density if compacted, poor work ability, and high organic matter content. The depth to bedrock is relatively shallow at about 1.5 to 2.5 feet. If allowed to dehydrate, this soil has high shrinkage but low swelling potential and transforms irreversibly into gravel-size aggregates. (U.S. Department of Agriculture, 1972). See Figure 3-1, Soils and Surface Water.

3.2.2 Surface Water

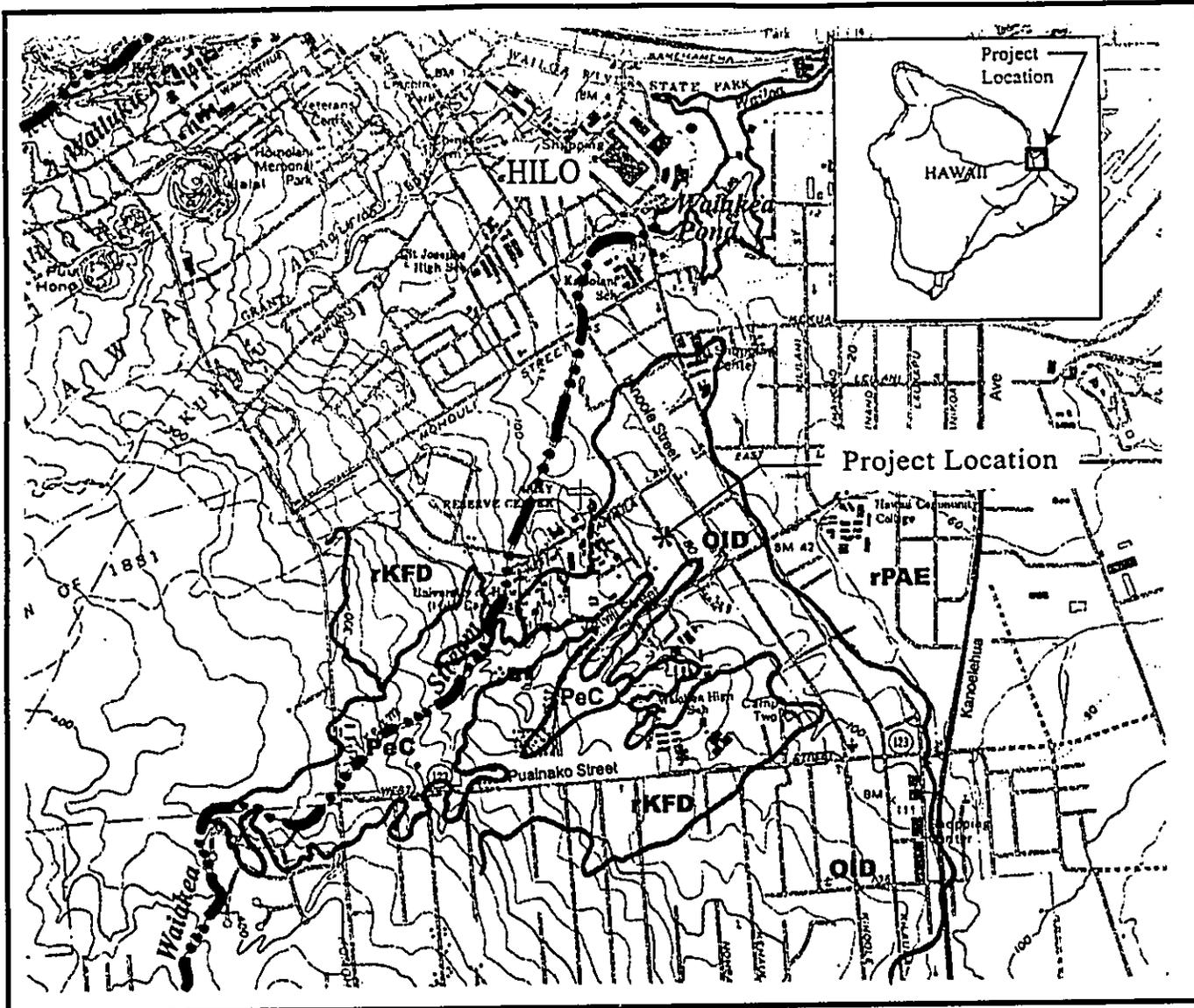
No surface water occurs on or in proximity to the project site. The nearest source of surface water is Waiakea Stream, located approximately ½ mile to the west. Waiakea Stream is a tributary of Wailoa River, which is classified as a continuous, perennial river. Wailuku River is located approximately 2 miles to the north-west. Wailuku River is a continuous flow, emptying into the sea year-round. The project site lies directly south of Bay Front Beach Park on Hilo Bay, at a distance of approximately 1 ½ miles. No other sources of surface water exist in proximity to the proposed project site. No wetlands occur within the project site or the vicinity of the project site.

3.2.3 Ground Water

The project area is not a source for groundwater. Water supply for the proposed development will be dependent on the adequacy of source, storage and transmission facilities for the property.

3.2.4 Project Impacts

Due to the great distance separating the project site from surface waters, and the absence of wetland areas in the project vicinity, no adverse impacts to surface waters or wetlands are anticipated.



Legend

- OID** - Oiaa extremely stony, silty clay loam
0 to 20% slopes
- PeC** - Panaewa very rocky silty clay loam
0 to 10% slopes
- rKFD** - Keaukaha extremely rocky muck
6 to 20% slopes
- rPAE** - Papai extremely stony muck
3 to 25% slopes

**Figure 3-1
SOILS AND SURFACE WATER**

0 1000 2000 4000
FEET

Department of Health
Residential Children's Facility
South Hilo District, Island of Hawaii

R. M. TOWILL CORPORATION
October 1999

Source: U.S. Department of Agriculture
Soil Conservation Service, 1972

Water for the proposed project will be provided by new underground service lines within the site. The new service lines will connect to existing County service lines in Ululani Street. The applicant will submit anticipated maximum daily water usage as recommended by a registered engineer for County review and approval prior to construction. All proposed development plans will be submitted to the County for review and approval prior to construction.

3.2.5 Mitigation Measures

The project design will include water conservation, low flow fixtures as required by the Uniform Plumbing Code. No additional mitigation measures are planned for the proposed project.

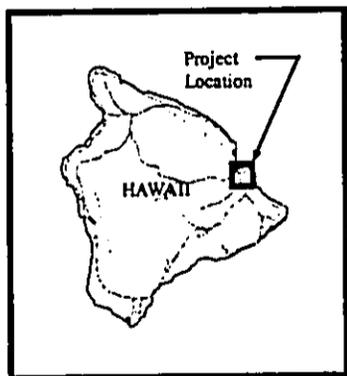
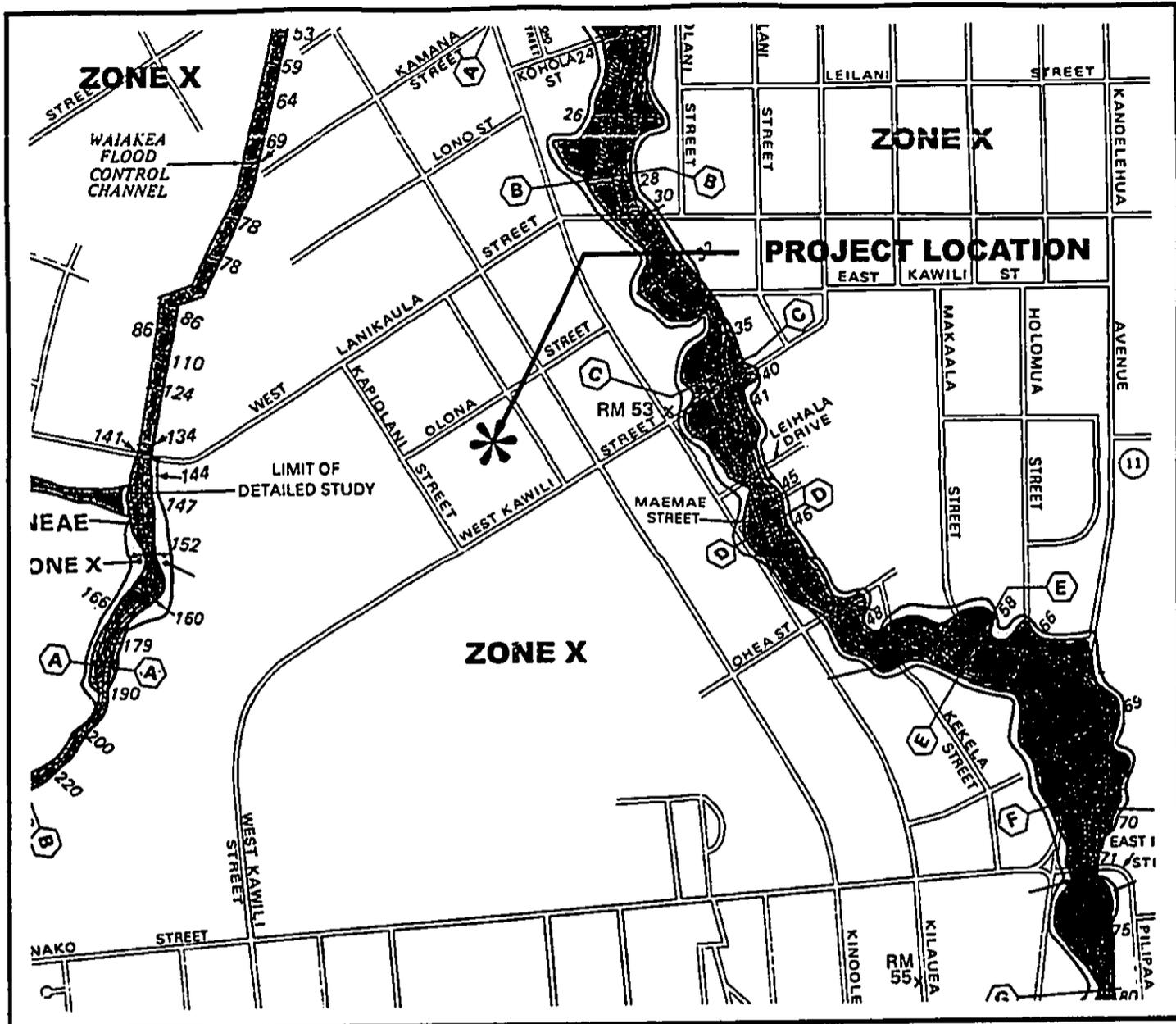
3.3 NATURAL HAZARDS

3.3.1 Earthquake

The Uniform Building Code (UBC) provides minimum design criteria to address potential for damages due to seismic disturbances. Range of seismic risk varies from Zone 0, indicating no damage, to Zone 4, indicating major damage. The 1997 Building Code Standards for the Island of Hawaii is currently being upgraded from Seismic Zone 3 to Seismic Zone 4, as established by the UBC, indicating major damage from earthquakes (personal communication, County of Hawaii, Department of Public Works, 2/18/99).

3.3.2 Flood Zones

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate map (FIRM) of September 16, 1988 identifies the proposed project site as lying within "Zone X" - an area determined to be outside of the 500-year flood plain. This designation indicates the site is not subject to flooding that would impact the project. See Figure 3-2, FEMA/FIRM Map.

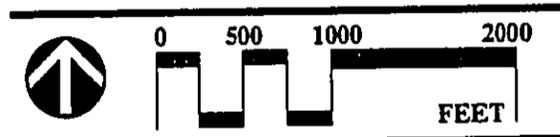


Legend

ZONE X - Areas determined to be outside of the 500-year flood plain.

Source: Federal Emergency Management Agency
 Flood Insurance Rate Map, Hawaii County
 Revised September 16, 1988

**Figure 3-2
 FEMA/FIRM MAP**



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3.3.3 Project Impacts

The proposed project is not at risk from flood damage and will not exacerbate conditions that would contribute to flooding. Additionally, because seismic risk at the project site is minimal, the proposed project is not likely to be affected by seismic activity.

3.3.4 Mitigation Measures

All structures proposed for this project will be built, at a minimum, according to standards for UBC Seismic Zone 4. No additional flood control measures are planned or required for the proposed project.

3.4 AIR QUALITY

3.4.1 Air Quality

Presently, air quality in the vicinity of the project is good. The primary sources of air pollution are from auto emissions and agricultural activities. Agricultural sources of air pollution include burning of vegetation, spraying of insecticides and herbicides, and equipment emissions. To a lesser and occasional extent, air quality is impacted by natural pollution sources. Natural sources of air pollution that may affect the air quality of the site include the ocean, plants, wind-blown dust and volcanic activity.

3.4.2 Project Impacts

If the proposed project is given the necessary approvals to proceed, it is inevitable that some short- and long-term impacts on air quality will occur either directly or indirectly as a consequence of project construction and use. Short-term impacts from fugitive dust will likely occur during the project construction phase. To a lesser extent, exhaust emissions from stationary and mobile construction equipment, and from workers' vehicles may also affect air quality during the period of construction. Minor long-term air quality impacts will result from routine vehicle traffic accessing the Center, however these impacts will not significantly degrade local air quality.

3.4.3 Mitigation Measures

State standards have been established to maintain ambient air quality at healthy levels. At present, seven parameters are regulated including: particulate matter, sulfur dioxide, hydrogen sulfide, nitrogen dioxide, carbon monoxide, ozone, and lead. State air pollution control regulations require that there be no visible fugitive dust emissions at the project boundary. Therefore, an effective dust control plan will be implemented by the project contractor to ensure compliance with state regulations.

Fugitive dust emissions can be controlled to a large extent by watering of active work areas, using wind screens, and by covering open-bodied trucks. Exhaust emissions will be mitigated by ensuring that project contractors properly maintain their internal combustion engines and comply with DOH Rules Title 11, Chapter 60-1, regarding Air Pollution Control.

Upon completion of the proposed construction, the project does not anticipate significant long-term impacts to air or noise quality at the project site and surrounding area. No additional mitigation measures are planned for the proposed project.

3.5 WASTEWATER

3.5.1 Wastewater

Although the subject project is located in the critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee, it is located within the County sewer service system.

3.5.2 Impacts

Wastewater services for the proposed project will be provided by new underground service lines which will connect to the existing County sewer service lines in Ululani Street. The applicant will coordinate with the appropriate County and State agencies to obtain review and approval of all plans for the proposed project.

3.5.3 Mitigation Measures

All wastewater plans will conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." Underground Injection Systems which receive wastewater or storm water run-off from the proposed project will conform to the requirements of Title 11, Chapter 23, Hawaii Administrative Rules (HAR), "Underground Injection Control." No additional mitigation measures will be planned or required for the proposed project.

3.6 NOISE

3.6.1 Noise

Ambient noise levels in the area are currently dominated by traffic on nearby streets - primarily on West Kawili Street. Occasional overflight by aircraft on approach and departure from Hilo International Airport Runway 3-21, which is aligned with a flight path over downtown Hilo and the project site, also contributes to noise levels in the area. (In response to noise complaints from the local community, Runway 3-21 is used only when weather conditions prohibit use of Runway 8-26.) (Hilo International Airport Master Plan, 1990) Other noise sources include the use of landscape and maintenance equipment in the area, including tractors, compressors, and hand-held gas-powered tools.

3.6.2 Project Impacts

Construction of the proposed Residential Children's Facility will likely generate noise which could impact nearby areas. The actual noise levels produced are dependent on the construction methods employed. Diesel engine powered bulldozers, trucks, backhoes, front-end loaders, etc., will probably be the noisiest equipment used during construction. However, as the noise will be temporary, no lasting impact from construction activities is expected.

The Residential Children's Facility will not be used for noise-intensive activities. Normal activities at the facility will generate relatively low levels of noise, from vehicle traffic and

occasional use of powered maintenance and landscaping equipment on the facility grounds. Additionally, fan and motor noise from the air conditioning condenser and compressor will contribute to ambient noise. No adverse long-term noise impacts are anticipated from development of the site.

3.6.3 Mitigation Measures

In order to mitigate noise impacts, contractors will muffle all construction vehicles and machinery and maintain all noise attenuation equipment in good operating condition. Faulty equipment will be repaired or replaced. Additionally, construction activities and use of heavy equipment will be scheduled as much as possible during daylight hours to avoid disturbing area residents during the evening. All construction and facility operations will comply with applicable maximum permissible sound levels as indicated in HAR, Chapter 11-46, "Community Noise Control." The contractor will obtain a noise permit if the noise levels from construction activities are expected to exceed the allowable levels of the rules.

3.7 BIOLOGICAL RESOURCES

3.7.1 Flora

The flora on the site consist primarily of introduced species including African tulip (*Spathodea campanulata*), oak ferns (*Dryopteris dentata*), ginger (*Zingiber* ssp.), 'ape (*Alocasia macrorrhiza*), taro (*Colocasia* ssp.), kukui (*Aleurites moluccana*), and umbrella trees (*Brassaia actinophylla*). There are Two large Chinese banyan trees (*Ficus retusa* L.), however neither tree has been designated by ordinance as an "exceptional tree" that would protect it from being removed.

3.7.2 Fauna

Domestic animals, including cats and dogs, certainly make use of the site. Introduced bird species, such as mynahs (*Acridotheres tristis*), doves (*Streptopelia chinensis*), ricebirds (*Padda oryzivora*), and house sparrows (*Passer domesticus*) are common in the Hilo area. No threatened or endangered birds are known to inhabit the area.

None of the plants or animals known from the project vicinity is a threatened or endangered species or species of concern (U.S. Fish and Wildlife Service 1997). All of the plants and animals noted above can be found in similar environmental habitats throughout Hawaii and the other Hawaiian Islands.

3.7.3 Project Impacts

Project activities include clearing vegetation to make room for the building site. The two large Chinese banyan trees would likely be removed due to the potential damage caused by the roots, as experienced at the existing facility. None of the plant species that would be affected by construction activities are rare or endangered. Project activities might alter the local distribution of birds presently visiting the site, but will not impact the overall abundance of these species on Hawaii. Given the above findings, the proposed project will not have a significant negative impact on botanical or faunal resources.

3.7.4 Mitigation Measures

There are no reasons to impose restrictions or impediments to the proposed project based on natural biological resources at the site. It is recommended that areas cleared of vegetation during construction be planted over as soon as possible to prevent soil loss. Wherever possible, it is recommended that native plant species be used for re-vegetation and landscaping. No other mitigation measures are required or recommended for botanical and faunal resources.

3.8 HISTORIC AND ARCHAEOLOGICAL RESOURCES

3.8.1 Historic Resources

The proposed project site is located on a vacant lot with no known architectural or other features of historical significance.

3.8.2 Archaeological Resources

A preliminary archaeological assessment of the project area, conducted in January

1993, identified at least 15 large architectural features and numerous small features that warranted further investigation. A thorough archaeological assessment of the area including a complete inventory survey was subsequently conducted by Scientific Consultant Services in January 1999 (See Appendix B). Features found within the project site were similar to features associated with post-contact cultivation and transportation of sugar cane that have been found in nearby lands (Hunt & McDermott 1994, McGerty & Spear 1999). Those features included clearing mounds, foundations for water tanks, loading platforms, temporary flumes, and boundaries for cane and pasture lands.

Under the advisement of Dr. Pat McCoy of the State Historic Preservation Division, the archaeological survey included full-coverage field reconnaissance, and mapping, photographing, and recording of the identified surface features within the proposed project site. Given the extensive sugar cane cultivation that occurred in the area from the 1840s to the 1940s, the results of earlier surveys conducted in the area, and the surveys conducted for the proposed project, it appears that evidence of traditional Hawaiian activities have long since been destroyed by post-contact human activity. (McGerty & Spear 1999).

3.8.3 Project Impacts

No adverse impacts to cultural, historic, or archaeological resources are anticipated from the proposed development of the Residential Children's Facility.

3.8.4 Mitigation Measures

According to discussions between Scientific Consultant Services, Inc. and the State Historic Preservation Division, sufficient information from the identified archaeological features was obtained during the 1999 inventory survey to allow development of the site as proposed (McGerty & Spear 1999). There is always the possibility that previously unknown or unexpected subsurface cultural features, deposits, or burials may be encountered. To ensure that no subsurface cultural features are destroyed during

project construction, work within the project area will be monitored by the project contractor. In the unlikely event that archaeologically significant remains are encountered, work will cease in the immediate area and the DLNR, State Historic Preservation Division will be notified at (808) 692-8015 to determine significance and treatment of any findings. No additional archaeological work or other mitigation measures are recommended for this site.

3.9 SCENIC AND RECREATIONAL RESOURCES

3.9.1 Recreational Resources

The proposed project site is a heavily vegetated vacant lot. No recreational facilities exist on the proposed project site and the site is not used for recreational purposes. Nearby recreational areas include the sport facilities at Waiakea High School and at the University of Hawaii at Hilo.

3.9.2 Scenic Resources

The State and County have identified no view plains or scenic vistas in the project vicinity. The proposed Residential Children's Facility site is located in an urban setting and surrounded by buildings and trees that limit the views of the surrounding area.

3.9.3 Project Impacts

No recreational resources will be impacted by the proposed project. Development of the Residential Children's Facility will include a small lanai and yard in which facility staff and clientele can engage in limited recreational activities. Scenic impacts associated with the construction and use of the proposed Residential Children's Facility are discussed in terms of short-term and long-term effects.

3.9.3.1 Short-Term Scenic Impacts

Short-term visual impacts associated with the project primarily relate to construction activities. Temporary signage and dust screens, the presence of heavy construction equipment, and ongoing modifications to the existing landscape will all create short-

term impacts on the visual setting surrounding the project site. Construction activities will be apparent from The Episcopal Church of Hawaii, Hilo Meishoin Church, Hale Tohbi, Hale Ohana, and several single family dwellings on Olona Street. Visual impacts related to construction activities are temporary in nature, however, and not considered significant.

3.9.3.2 Long-Term Scenic Impacts

The proposed project will result in long-term visual impacts in the form of a new built facility where currently only vegetation exists. The Residential Children's Facility will be constructed with a single-story roof line, thus will not be obtrusive within the surrounding built environment. As shown in the elevation drawings, the proposed Residential Facility will be unobtrusive with a final height of no more than 23' from finished grade. The new facility will be noticeable from the surrounding area, but will not intrude on any existing view planes.

3.9.4 Mitigation Measures

To minimize the visual impact of construction activities, the project contractor will ensure that work crews, heavy equipment, and signage will be utilized only to the extent required for project operations. Following construction, the facility grounds will be landscaped for shade and aesthetics and to assist in alleviating heat-load on the facility buildings. The facility will be designed to maximize the natural daylight and tradewinds of the area by using roofing styles and building surfaces that improve radiant and/or insulation with minimal intrusion on the surrounding area.

3.10 TRAFFIC AND ROADWAYS

3.10.1 Site Access

The proposed project is set back from the surrounding surface streets, within a city block bounded by Kawili Street on the south, Kapiolani Street on the west, Kinoole Street on the east, and West Lanikaula to the north. Preferred access to the site is off of West Lanikaula Street via Ululani Street, which dead-ends at the northern entrance

to the project site. A narrow easement (approximately 25' wide) appurtenant to the site runs east-west along the northern boundary, connecting the site to Kapiolani Street and Olona Street. The Department of Water Supply has agreed to share an access, if necessary, from Kapiolani Street along the southern boundary of the site. See Figure 3-3, Area Road Map.

3.10.2 Pedestrians and Bicyclists

The relatively uncongested setting, pleasant scenery, and mild climate of the Hilo area make it well-suited for walking and bicycling, except during periods of heavy rainfall. Surface streets surrounding the proposed project site are regularly used by both pedestrians and bicyclists. Much of the pedestrian and bicycle traffic in the neighborhood around the site is comprised of students from Waiakea High School and the University of Hawaii at Hilo.

3.10.3 Project Impacts

Development of the Residential Children's Facility will result in a temporary rise in heavy truck traffic on the surrounding streets, particularly during mobilization and demobilization of the construction area. Regular traffic will be impacted by the occasional presence of large, slow-moving vehicles on area streets and by increased traffic activity resulting from commuting construction crews.

After the Children's Facility opens, the clients will reside at the facility and only staff and visitors will be traveling to and from the facility. Due to the limited number of clients and staff personnel, traffic at the project site and surrounding area should be negligible. A traffic analysis was prepared for the originally proposed project including the Hilo Day Activity Center and Residential Children's Facility. This traffic analysis (Project Development Report (MPAC 1993)), predicted that about 8 vehicles per hour would be entering or exiting the two facilities during the morning peak hours, assuming a worst case scenario where parents dropped off the clients of the Day Activity Center rather than having them bussed. During afternoon peak hours, about 11 vehicles per hour

would be entering or exiting both facilities. Due to the canceling of the Hilo Day Activity Center from the scope of the proposed project, even under the worst case scenario, traffic levels related to the proposed Residential Children's Facility operations are quite low, thus no significant or long-term impacts to the surrounding streets are expected from this project.

3.10.4 Mitigation Measures

To minimize traffic impacts to the nearby residents, the contractor will schedule heavy truck activity between the hours of 9:00 am and 3:00 pm on weekdays and will suspend activity on weekends and State holidays. All roadways impacted by construction-related debris or damage will be returned to clean and serviceable condition following completion of construction activities.

3.11 LAND USE AND OWNERSHIP

3.11.1 Land Use

The proposed project site is located within the State Land Use Urban District. The County of Hawaii zoning designation is Multi-Family Residential (RM-1). The proposed Residential Children's Facility is a permitted use in the RM-1 zoned district pursuant to Section 25-4-11(c) of the Hawaii County Zoning Code. According to the County Planning Department, no land use approvals or permits will be required to allow the establishment of the proposed facility within the project site. A Plan Approval will be obtained prior to securing a building permit for the construction of the proposed facility. This review will ensure that the proposed facility complies with all of the requirements of the Zoning Code. The project site is situated outside of the Special Management Area (SMA), thus it is not subject to SMA permit requirements.

Land use in the immediate vicinity of the project site is predominantly residential, comprised of both single family dwellings, multiple unit apartment and affordable housing complexes. Two churches, the Episcopal Church of Honolulu and the Hilo Meishoin Church are located within the same city block to the east and west of the

proposed project site. Land use in the surrounding area is dominated by the University of Hawaii at Hilo campus, and, to a lesser extent, the campus of Waiakea High School. See Figure 3-4, Special Management Area and Zoning Map.

3.11.2 Ownership

The proposed project site is a 2.5-acre portion of an 11.126-acre State-owned parcel (TMK: 2-4-57: 01) that is currently under the jurisdiction of the Department of Land and Natural Resources, Division of Land Management (DLNR). Once planning and subdivision approvals have been obtained, including the processing of an environmental assessment, DLNR will transfer the 2.5-acre site by Executive Order to the Department of Health.

3.11.3 Project Impacts

The proposed Residential Children's Facility are consistent with existing State and County land use plans for the region. Although development of the Residential Children's Facility will require prior approval from the County Department of Planning, no zoning changes will be necessary to accommodate the new facility. The campus-like character and training function of the Children's Facility will blend well with surrounding land uses. Aside from its function in providing training and treatment services for children and adolescents with developmental disabilities, the potential social and economic effects of the Residential Children's Facility are anticipated to be minimal and will not lead to any changes in the surrounding patterns of land use.

3.11.4 Mitigation Measures

A Use Permit to allow for development of "a Residential Facility for children and adolescents with severe emotional needs" within a Multi-Family Residential (RM-1) zoning district, or a determination that the project meets zoning regulations as a "Public Use Facility" is required from the County Department of Planning. No other mitigation measures are recommended or required.

3.12 DEMOGRAPHICS

3.12.1 Population Characteristics

The proposed project site is located in Census Tract 205, in the South Hilo District, Hawaii County. According to the U.S. Census (DBEDT 1996), the population of the South Hilo District was 44,639 in 1990, of which 5,576 resided in Census Tract 205. Approximately 33 percent of the population are of Japanese descent, followed by 25.8 percent Caucasian, 19.7 percent Hawaiian, and 9.3 percent Filipino. Other ethnic races include Chinese 3.3 percent, Black 1.1 percent, American Indian 0.9 percent, and all others 6.5 percent. The median family income for the area is approximately \$26,000. See Figure 3-5, 1990 Census Tracts, County of Hawaii.

3.12.2 Housing

Housing in the area surrounding the project site is comprised of single family dwellings and low-rise apartment buildings for student housing and low-income families. According to 1990 census figures, there are 748 owner-occupied housing units and 1,348 renter-occupied housing units in Census Tract 205. The median value of a house in this area was \$111,700 in 1989 dollars. The average number of persons per household is 2.56. Housing statistics for Census Tract 205 are influenced by the proximity of the University of Hawaii at Hilo. The percentage of renter-occupied units is disproportionately large compared to other areas on the island due to numerous student rental units in the area surrounding the university.

3.12.3 Project Impacts

The proposed project is not anticipated to influence changes in local population characteristics or housing conditions within Hilo or within the local neighborhood surrounding the site. The Residential Children's Facility will not be an impetus to increased development or population growth. The proposed project will not result in any adverse impacts that would disproportionately impact minority populations or low-income families.

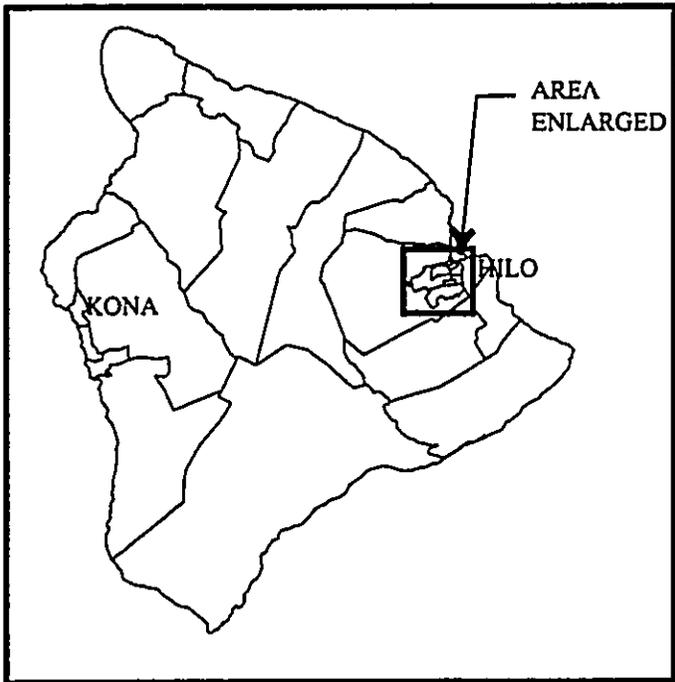
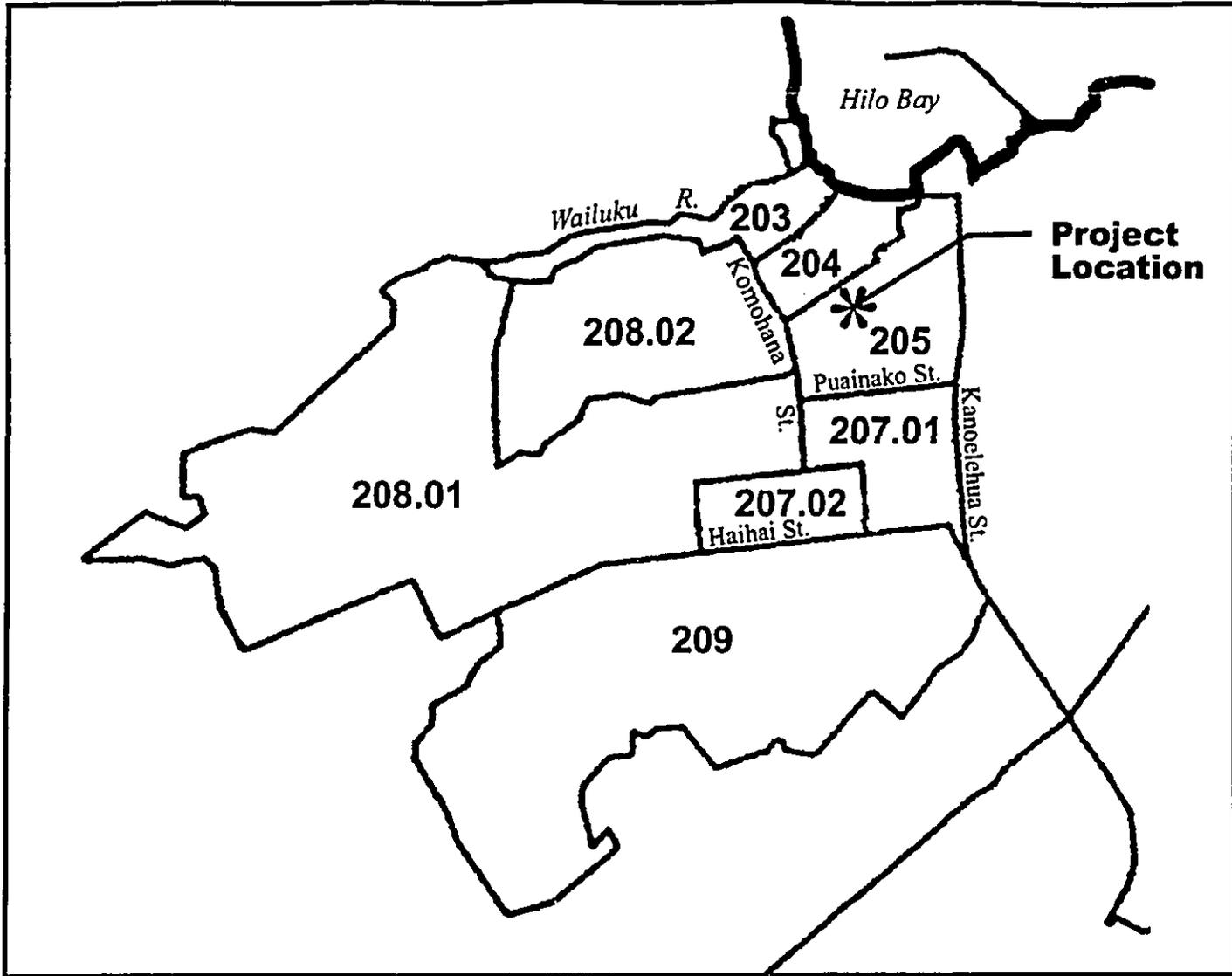


Figure 3-5
1990 CENSUS TRACTS
COUNTY OF HAWAII



NOT TO SCALE

Department of Health
 Residential Children's Facility
 South Hilo District, Island of Hawaii

R. M. TOWILL CORPORATION
 October 1999

3.12.4 Mitigation Measures

No mitigation measures are recommended or required.

3.13 ECONOMIC CHARACTERISTICS

3.13.1 Economic Characteristics

Hilo functions as the island's industrial, commercial, distribution and population core. Approximately 30 percent of all Big Islanders live in this city. The rest of the population is scattered in other settlements throughout the island.

Hilo Harbor serves as the primary shipping point for the agricultural industry around Hilo. A number of related industries are also located in the city, such as fertilizer distributors, petroleum product distributors, machine and equipment dealers, repair facilities, and some light manufacturing. Several crop and livestock businesses are located in South Hilo.

Flowers, primarily orchids, are grown extensively throughout the vicinity of Hilo. Anthuriums are another local agricultural product that maintains significant standing in the flower market. Several kinds of manufacturing operations are located in Hilo, including the processing of food, fruit, livestock, and garment manufacturing.

The presence of the University of Hawaii at Hilo has stimulated research and development industries in the city. Already established in Hilo are the University of Hawaii Cloud Physics Laboratory, agricultural experiment stations and astronomy-related base facilities.

3.13.2 Project Impacts

The proposed Residential Children's Facility is expected to have a beneficial effect on the economic and social welfare of the Hilo community. The Residential Facility is proposed to meet the existing and future needs of the local population of children and adolescents with serve emotional needs. Through the Center and the Facility's training

and treatment programs, clients will develop the motor skills, work skills, and daily life skills necessary to participate as active, productive members of the local social and economic community. No adverse affects to the economic or social welfare of the community or State are anticipated from the development of the proposed facility.

Short-term economic impacts from the proposed project will result from construction jobs, services, and procurement in the form of construction supplies and equipment, however these benefits will be primarily be realized outside of the local community.

3.13.3 Mitigation Measures

No mitigation measures are required or recommended.

CHAPTER 4
RELATIONSHIP TO LAND USE POLICIES
AND CONTROLS OF THE AFFECTED AREA

4.1 OVERVIEW

State and County policy plans and land use plans and controls are established to guide development in a manner that enhances the overall living environment of Hawaii, and that ensures that long-term social, economic, environmental, and land use needs of the people of Hawaii are met. The use of the site for the proposed development of the Residential Children's Facility is in accord with State and County land use plans and policies, as discussed below.

4.2 STATE OF HAWAII

4.2.1 State Plan

The State Plan, adopted in 1978, consists of three parts:

- (1) an overall theme together with broad goals, objectives, and policies;
- (2) a system designed to coordinate public planning to implement the goals, objectives, and policies of the State Plan; and,
- (3) priority guidelines which are statements of Statewide interrelated problems deserving immediate attention.

Three broad goals in the areas of the economy, the physical environment, and the physical, social and economic well-being of the people express the ideal end-states of the State Plan. Development of the proposed Residential Children's Facility supports the State Plan's general objectives and policies in the following areas:

Objective: Socio-Cultural Advancement - Education: "Planning for the State's socio-cultural advancement with regard to education shall be directed towards

achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations."

Policy: "Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs."

Policy: "Provide appropriate training opportunities for groups with special needs."

Policy: "Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate training programs and other related training programs."

Objective: Socio-Cultural Advancement - Social Services: Planning for the State's socio-cultural advancement with regard to social services shall be directed towards achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.

Policy: "Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities."

Policy: "Promote alternatives to institutional care in the provision of long-term care for...disabled populations."

The proposed Residential Children's Facility supports the training and social service goals of the State Plan. The Children's Facility is proposed to meet the current and

future needs of the population of developmentally disabled children and adolescents within the Hilo community.

4.2.2 State Functional Plans

The State functional plans are intended to provide more detail to the State Plan. They serve to guide State and County actions under specific functional topics of governance. The functional plan relevant to the proposed Residential Children's Facility is the State Health Functional Plan. Applicable objectives and policies from this plan are discussed below:

Health: Services to the Mentally Retarded and Developmentally Disabled Persons

Objective Z: "To Assure the availability of residential alternatives and a comprehensive system of services and activity programs to enable mentally retarded persons to live and develop successfully within the community."

Policy Z(2): "Support and sustain families and others who care for mentally retarded and developmentally disabled persons in the community."

Implementing Actions: "Provide anticipatory guidance, counseling, education and training to families and other care givers. Assure the development of statewide homemaker and respite care services."

Policy Z(3): "Assist...developmentally disabled persons to live effectively in the community."

Implementing Actions: "Provide opportunities for day activities and development of employment skills for the developmentally disabled."

The project is consistent with Objective Z of the State Health Functional Plan. The Residential Children's Facility is proposed to provide a residential facility for children and adolescents with severe emotional needs to foster greater independence. The

Residential Facility will provide programs for the development of basic motor skills, practical work skills, and daily living skills.

4.2.3 State Land Use Commission

The State Land Use Commission classifies all lands in the State of Hawaii into one of four land use designations: Urban, Rural, Agricultural, and Conservation. The proposed project site is located within the State Urban District. The development and operation of the Residential Children's Facility is generally compatible with an urban setting. Lands in the Urban District are subject to county zoning regulations.

4.3 COUNTY OF Hawaii

4.3.1 General Plan

On the County of Hawaii's General Plan Land Use Pattern Allocation Guide Map, the project site is located in an area designated as Medium Density Urban Development. This designation is defined in the General Plan as intended for "village and neighborhood commercial and residential and related functions (3-story commercial; residential - up to 35 units per acre)". The proposed Residential Children's Facility will be consistent with the following objective of the General Plan:

Public Facilities

Goal: "Encourage the provision of public facilities that effectively service community needs and seek ways of improving public service through better and more functional facilities which are in keeping with the environmental and aesthetic concerns of the community."

Policies: "The County shall coordinate with appropriate State agencies for the provision of public facilities to serve the needs of the community."

4.3.2 Special Management Area and Coastal Zone Management

Special controls on development in coastal areas are established to avoid the permanent loss of valuable coastal resources and the foreclosure of management

options. Special Management Area (SMA) boundaries are set by the County to delineate coastal zone areas subject to such controls. The County of Hawaii SMA Boundary Map for the Hilo area shows the proposed project site to be located outside of the SMA, thus is not subject to SMA permit requirements (personal communication, County of Hawaii, Department of Planning, 2/18/99).

The State of Hawaii designates a Coastal Zone Management program to manage the intent, purpose and provisions of Chapter 205A-2 of the Hawaii Revised Statutes, as amended, and federal regulations for the areas from the shoreline to the seaward limit of the State's jurisdiction and any other area which a lead agency may designate for the purpose of administering the Coastal Zone Management program.

The facility conforms to the Coastal Zone Management Program Objective 1, Recreational Resources which calls for the provision of adequate, accessible, and diverse recreational opportunities in the Coastal Zone Management area. The proposed facility is not located on the coastline or shoreline and does not involve coastal resources. The site is not in a location to develop new shoreline recreational opportunities or to dedicate shoreline areas with recreational value.

The proposed facility conforms to the Coastal Zone Management Program Objective 2, Historic Resources, which ensures that new development will protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources that are significant in Hawaiian and American history and culture. The proposed facility achieves this objective by designing new structures in a manner that will not negatively impact the coastline, its resources and the surrounding community.

The proposed facility conforms to the Coastal Zone Management Program Objective 3, Scenic and Open Space, which encourages new development to protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources. The propose facility is compatible with this objective by designing and re-

developing an area to minimize the alteration of undeveloped lands natural land forms and existing public views to and along the shoreline.

4.3.3 Zoning

The County zoning designation is Multi-Family Residential (RM-1). The Residential Children's Facility is a permitted use in the RM-1 zoned district pursuant to Section 25-4-11(c) of the Hawaii County Zoning Code. According to the County Planning Department, no land use approvals or permits will be required to allow the establishment of the proposed facility within the project site. A Plan Approval will be obtained prior to securing a building permit for the construction of the proposed facility. This review will ensure that the proposed facility complies with all of the requirements of the Zoning Code.

**CHAPTER 5
NECESSARY PERMITS AND APPROVALS**

5.1 STATE OF HAWAII

5.1.1 Department of Land and Natural Resources (DLNR)

When planning and subdivision approvals have been obtained, the Department of Land and Natural Resources, Division of Land Management will transfer the site by Executive Order to the Department of Health.

5.2 COUNTY OF HAWAII

5.2.1 Department of Planning

A Plan Approval will be obtained prior to securing a building permit for the construction of the proposed facility. This review will ensure that the proposed facility complies with all of the requirements of the Zoning Code.

5.2.2 Department of Public Works

Building permit must be obtained for the proposed uses.

CHAPTER 6
ORGANIZATIONS AND AGENCIES CONSULTED DURING
DEA 30-DAY COMMENT PERIOD

6.1 STATE AGENCIES

Department of Accounting and General Services
Department of Health, Environmental Planning
Department of Housing Community Development Corporation of Hawaii
Department of Land and Natural Resources
 Division of Land Management
 State Historic Preservation Division
Department of Transportation
Office of Planning

6.2 COUNTY OF HAWAII

Department of Parks & Recreation
Department of Public Works
Department of Water Supply
Planning Department

6.3 PRIVATE ORGANIZATIONS

Kokua Club
MPAC, Inc., Planning Consultants
Stuart Erikson & Associates, Architects
Scientific Consultant Services, Archaeologists
Hilo Public Library
Hawaii Electric Light Company

6.4 ELECTED OFFICIALS

Mayor's Office

CHAPTER 7 DETERMINATION

7.1 OVERVIEW

In accordance with the provisions set forth in Chapter 343, Hawaii Revised Statutes, and in Section 11-200-12 of Title 11, Chapter 200, Hawaii Administrative Rules (HAR), the proposed Residential Children's Facility has been assessed for short- and long-term and cumulative effects on the environment.

7.2 SIGNIFICANCE CRITERIA

Significance criteria set forth in Section 11-200-12 of Title 11, Chapter 200 HAR were used to evaluate the potential impacts of the proposed project on the environment. The thirteen criteria are listed below along with a brief discussion.

Criteria 1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

An assessment of flora and fauna, and historic and archaeological sites at and near the project area found no presence of natural or cultural resources that would be jeopardized by the proposed project. A complete survey inventory and data recovery on the proposed site was conducted by archaeologists in consultation with the Department of Land and Natural Resources, State Historic Preservation Division (DLNR-SHPD). According to discussions with DLNR-SHPD, sufficient data has been obtained from all surface features to permit the proposed development of the Residential Children's Facility (McGerty and Spear 1999).

Criteria 2. Curtails the range of beneficial uses of the environment;

The proposed project site is located on a vacant parcel of land. The site is currently unused and heavily overgrown with vegetation. Development of the site will not displace any structures or activities and will not detract from the function or use of the environment.

Criteria 3. Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS;

The project proposal has been prepared according to State and County guidelines, plans, and policies and has been found to be in compliance with all relevant provisions.

Criteria 4. Substantially affects the economic or social welfare of the community or State;

The proposed Residential Children's Facility is expected to have a beneficial effect on the economic and social welfare of the Hilo community. The facility is proposed to meet the existing and future needs of the local population of developmentally disabled children and adolescents with the objective of fostering independence. Through the two facilities' training and treatment programs, clients will develop the motor skills, work skills, and daily life skills necessary to participate as active, productive members of the local social and economic community. No adverse affects to the economic or social welfare of the community or State are anticipated from the development of the proposed facility.

Criteria 5. Substantially affects the public health;

Factors affecting public health, including air quality, water quality, and noise levels, were assessed and determined to be only minimally affected or unaffected by the construction and use of the proposed Residential Children's Facility. Appropriate mitigation measures for short-term, construction-related impacts to noise levels, air quality, and water quality will be followed by the project contractor.

Criteria 6. Involves substantial secondary impacts, such as population changes or effects on public facilities;

Development of the proposed project will not result in substantial secondary impacts to the natural or built environment, or to the social and economic community. The proposed project will not stimulate unexpected change in the population, but will accommodate the current and future needs of the local population of developmentally

disabled adults in the Hilo area. The proposed Residential Children's Facility will utilize existing public facilities, including area streets and utilities, but will not place significant additional burden on those facilities.

Criteria 7. Involves a substantial degradation of environmental quality;

Analysis of air and water quality, noise levels, and land use associated with the construction and use of the Residential Children's Facility has determined that the proposed project will not substantially degrade environmental quality.

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

The proposed project is being developed in accordance with the State Plan and the State Health Functional Plan. The proposed facilities are a component of the State's commitment to assure the availability of residential alternatives and a comprehensive system of services and activity programs to enable developmentally disabled persons to live and develop successfully within the community. The Residential Children's Facility are proposed as facilities to meet existing and future needs within the Hilo community. It will not result in cumulative effects upon the environment nor will it involve a commitment for larger actions.

Criteria 9. Substantially affects a rare, threatened, or endangered species, or its habitat;

Site visits have identified no species that are listed as rare, threatened, or endangered by the State or Federal government. Historic agricultural activities and intensive modifications in the project area have long since replaced native habitat.

Criteria 10. Detrimently affects air or water quality or ambient noise levels;

Short-term impacts to air quality and ambient noise levels will result from construction activities, however these effects would be minimal and would cease when construction is complete. No sources of surface water occur in the project area and development of

the proposed site will not involve activities or future planned uses that would ordinarily impact ground water sources. No detrimental long-term effects to these environmental measures are anticipated from development of the project.

Criteria 11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

The project site is located inland from any coastal waters within an area determined by the Federal Emergency Management Agency to be outside of the 500-year flood zone. All structures proposed for this project will be built according to standards for seismic zone 2, as established by the Uniform Building Code. The project is not likely to affect or suffer damage from natural forces.

Criteria 12. Substantially affects scenic vistas and view planes identified in County or State plans or studies;

The project site is not located within any scenic vista or view plane identified in County or State Plans. The proposed Residential Children's Facility buildings are designed with a single-story roof line that will blend into the surrounding landscape of low-rise apartment buildings and single-family dwellings. Following construction, the facility grounds will be landscaped for shade and aesthetics as well as to assist in alleviating heat-load on the facility building. Visual impacts associated with construction activities will be temporary.

Criteria 13. Requires substantial energy consumption.

Construction activities associated with the Residential Children's Facility would require high, short-term energy use, however, daily operations of the proposed facility would not result in a substantial burden to the available power supply. Hawaii Electric Light Company has adequate lines available to serve this project. The facility will be designed to maximize the natural daylight and tradewinds of the area by using roofing

styles and building surfaces that improve radiant and/or insulation with minimal intrusion on the surrounding area. The design will include exceeding the requirements stated in the State of Hawaii Model Energy Code for installing qualifying energy efficient technologies.

7.3 FINDINGS

In accordance with the provisions set forth in Chapter 343, Hawaii Revised Statutes, and the significance criteria in Section 12 of Title 11, Chapter 200, this assessment has determined that the project will have no significant adverse impact to water quality, air quality, existing utilities, noise levels, social welfare, archaeological sites, or wildlife habitat. All anticipated impacts will be temporary and will not adversely impact the environmental quality of the area.

The State Department of Accounting and General Services has determined that an Environmental Impact Statement (EIS) will not be required, and issued a Finding of No Significant Impact (FONSI) for this project.

REFERENCES

- Department of Research and Development, County of Hawaii (1997) *1997 County of Hawaii Data Book*, Hilo, Hawaii, www.hawaii-county.gov.
- Hunt, Terry L, and McDermott, M. J. (1994) *Archaeological Inventory Survey, Pu'ainako Street Extension Project*, prepared for Okahara and Associates, Engineering Consultants, Honolulu, Hawaii.
- McGerty, Leann, and Spear, Robert L., (January 1999) *An Inventory Survey of an Additional Unsurveyed Portion of TMK: 2-4-57: 01, Land of Waiakea, South Hilo District, Island of Hawaii*, prepared for R. M. Towill Corporation by Scientific Consultant Services, Inc., Honolulu, Hawaii.
- MPAC, Inc. (1993) *Final Project Development Report, Hilo Day Activity Center, Hilo, South Hilo District, Hawaii*, prepared for State of Hawaii, Department of Accounting & General Services, Honolulu, Hawaii.
- State of Hawaii, Department of Business, Economic Development & Tourism (DBEDT) (1996) *The State of Hawaii Data Book, 1996*. Honolulu, Hawaii.
- State of Hawaii, Department of Business, Economic Development & Tourism (DBEDT) (1996) *Restoring Hawaii's Economic Momentum, 1996*. Honolulu, Hawaii.
- University of Hawaii, Department of Geography (1983) *Atlas of Hawaii (2nd Edition)*, University of Hawaii Press, Honolulu, Hawaii.
- U.S. Department of Agriculture, Soil Conservation Service (1972) *Soil Survey of Islands of Kauai, Oahu, Hawaii, Molokai, and Lanai, State of Hawaii*, with University of Hawaii Agricultural Experiment Station, Honolulu, Hawaii.
- U.S. Department of Commerce, Bureau of the Census (1990) *1990 Census of Population and Housing, Hawaii*, Washington, D.C..
- U.S. National Park Service Western Region Natural Resources and Research Division Hawaii Cooperative Park Service Unit, (December 1990) *Hawaii Stream Assessment - A Preliminary Appraisal of Hawaii's Stream Resources Report R84*, Prepared for the State of Hawaii Department of Land and Natural Resources Commission on Water Resource Management.

Appendices

Appendix A

Correspondence

Stephen K. Yamashiro
Mayor



County of Hawaii

PLANNING DEPARTMENT
25 Aupuni Street, Room 107 • Hilo, Hawaii 96720-1232
(808) 941-4228 • Fax (808) 941-4712

Virginia Goldstein
Inventor

Russell Nakulua
Byron Director

Mr. Chester Koga, AICP
R. M. Towill Corporation
Page 2
March 4, 1999

March 4, 1999

Mr. Chester Koga, AICP
R. M. Towill Corporation
420 Waiakamilo Road Suite 411
Honolulu, HI 96817-4941

Dear Mr. Koga:

Hilo Day Activity Center
Proposed Relocation
TMK: 2-4-57:1 portion

We have received your letter of February 17, 1999, regarding the Department of Health's (DOH) proposed relocation of the Hilo Day Activity Center to this site. As stated in your letter, this site is zoned Multiple Family Residential (RM-1).

Section 25-5-32(a)(17) lists "public uses and structures, as permitted under section 25-4-11" as a permitted use in the RM District.

Section 25-4-11(c) of the Zoning Code states that "public uses, structures and buildings and community buildings are permitted uses in any district, provided that the director has issued plan approval for such use." "Public use", "public building" and "public structure" means a use conducted by or a structure or building owned or managed by the federal government, the State of Hawaii or the County to fulfill a governmental function, activity or service for public benefit and in accordance with public policy. Excluded are uses which are not purely a function, activity or service of government and structures leased by government to private entrepreneurs or to non-profit organizations.

Plan Approval means the review and approval of plans for new structures and additions to existing structures, and certain uses in specified zoning districts in order to assure that the

intent and purpose of Zoning Code is carried out. You must submit an application for plan approval with the enclosed form and accompanied by:

- (1) A site plan, drawn to scale and fully dimensioned indicating clearly the following information:
 - (A) The location and dimension of the building site;
 - (B) The location, size, height, and use of all existing and proposed structures;
 - (C) All yards and open spaces;
 - (D) Location, height, and material of all fences and walls;
 - (E) The standard of improvement and location, number, and size of parking spaces, arrangement and on-site circulation of all off-street parking and loading facilities including points of access thereto from adjoining streets;
 - (F) The location, general nature, and type, and protection or shielding devices of all exterior lighting;
 - (G) All proposed landscaping and planting; and
 - (H) All proposed street dedication and improvement if any.
- (2) Any other information required by rules adopted by the director in accordance with Chapter 91, Hawaii Revised Statutes.

Should you have any questions, please contact Rodney Nakano of my staff at 961-3288.

Sincerely,

VIRGINIA GOLDSTEIN
Planning Director

RKN:gp
f:\wp60\rodney\99-1\log\sch1.rtf

Enclosure

420 Waiakamilo Road
Suite 411
Honolulu, Hawaii 96817, PH1
Telephone 808 842 1133
Fax 808 842 1137
eMail rmg@rmtc.com



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STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 113 HONOLULU, HAWAII 96819

REGULAR LETTER
CONFIRMED

(P) 1549.9

February 17, 1999

Mrs. Virginia Goldstein, Director
Department of Planning
County of Hawaii
25 Aupuni Street, Room 109
Hilo, Hawaii 96720

SUBJECT: Hilo Day Activity Center, TMK: 2-4-57-01

Dear Mrs. Goldstein:

The State of Hawaii, Department of Accounting and General Services, on behalf of the Department of Health, proposes to develop the Hilo Day Activity Center, a facility for the education and treatment of developmentally disabled adults. The project site is a 2.0-acre portion of an 11.26-acre State-owned parcel located near the University of Hawaii at Hilo in the block bounded by Kinohi, Kawaii, Kapiolani, and Lanikaula Streets (TMK 2-4-57-01). The proposed project site is located within the State Land Use Urban District. The County of Hawaii zoning designation is Multi-Family Residential (RM-1).

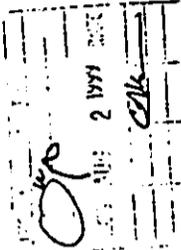
This letter is written to request a determination from your office of the proposed facility's compliance with zoning regulations for RM-1 districts. We understand that the Day Activity Center is not specifically listed as a permitted use in the RM-1 district, but may be allowed as a "public use building" or permitted under a Use Permit as "schools for the handicapped".

Your assistance is greatly appreciated. If you require additional information, please do not hesitate to contact me or Jim Nieermann, at 842-1133.

Sincerely,

Chester Koga, AICP
Project Manager

JUL 29 1999



Mr. Chester Koga, AICP
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817

Dear Mr. Koga:

Subject: Draft Environmental Assessment for
Hilo Day Activity Center and Residential
Children's Facility, TMK (3) 2-4-057-01

We have reviewed the Draft Environmental Assessment for the Hilo Day Activity Center and Residential Children's Facility and recommend this project be closely coordinated with the Department of Land and Natural Resources for "ceded land" issues. If there are any questions, please have your staff contact Mr. Brian Isa of the Planning Branch at 586-0484.

Sincerely,

GORDON MATSUOKA
Public Works Administrator

BI:jk

C: Mr. Ron Kurasaki, DOH

420 Wai'aleale Road
Suite 411
Honolulu, Hawaii 96817-4941
Telephone (808) 842-1133
Fax (808) 842-1937
eMail mtowill@rcs.com



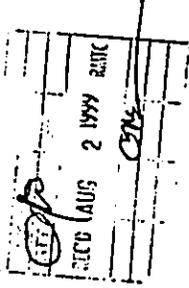
R. M. TOWILL CORPORATION
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July 30, 1999

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
25 AUPUNI STREET • HILO, HAWAII 96720
TELEPHONE (808) 961-8880 • FAX (808) 961-8887



August 16, 1999

Mr. Gordon Matsuoka
Public Works Administrator
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Matsuoka:

Subject: Draft Environmental Assessment for the Proposed Hilo Day Activity Center and Residential Childrens' Facility, TMK (3) 23-4-057: 01

The following is in response to your letter of July 29, 1999:

The applicant will work with the state Department of Land and Natural Resources regarding all "ceded land" issues.

All comments and responses will be incorporated in the Final Environmental Assessment being submitted to the State Office of Environmental Quality Control.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,

Chester Koga

Chester Koga, AICP

Mr. Chester Koga, AICP
R.M. Towill Corporation
420 Wai'aleale Road, Suite 411
Honolulu, HI 96817-4941

DRAFT ENVIRONMENTAL ASSESSMENT (DEA) FOR THE HILO DAY ACTIVITY CENTER AND RESIDENTIAL CHILDREN'S FACILITY
APPLICANT - STATE OF HAWAII, DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES (DAGS)
TAX MAP KEY: 2-4-057-001

We have reviewed the subject DEA and have the following comments.

Submit the anticipated maximum daily water usage as recommended by a registered engineer for our review and approval.

Further, we are presently reviewing the construction plans for the proposed development and our comments are preliminary (subject to being revised pursuant to the above, the Department of Public Works, and the Fire Department's comments and requirements).

Should there be any questions, please contact our Water Resources and Planning Branch at 961-8660.

Milton D. Pavao

Milton D. Pavao, P.E.
Manager

WA:gms

copy - DAGS
Department of Public Works
Fire Department

... Water brings progress...

420 Alakamiki Road
Suite 411
Honolulu, Hawaii 96817-2411
Telephone (808) 442-1133
Fax (808) 442-1917
email: rmt@rmt-hawaii.com



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BUILDING DIVISION - DPW

COUNTY OF HAWAII - 25 ALUPUNI STREET - HILO, HAWAII 96720
HILO OFFICE (808) 961-4331

KONA OFFICE (888) 327-3520

August 16, 1999

Mr. Milton D. Pavao, P.E.
Manager
Department of Water Supply
County of Hawaii
25 Alupuni Street
Hilo, Hawaii 96720

Dear Mr. Pavao:

Subject: Draft Environmental Assessment for the Proposed Hilo Day Activity Center and Residential Children's Facility, TMK (3) 23-4-057: 01

The following is in response to your comments of July 30, 1999, regarding the subject EA:

1. The applicant will submit anticipated maximum daily water usage as recommended by a registered engineer for your review and approval prior to construction.
2. All proposed development plans will be submitted for review and approval prior to construction.

All comments and responses will be incorporated in the Final Environmental Assessment being submitted to the State Office of Environmental Quality Control.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,

Chester Koga

Chester Koga, AICP

August 9, 1999

RM Towill Corporation
420 Waiakamilo Street, Room 411
Honolulu, HI 96817

Attn: Chester Koga, AICP

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT

Project: Hilo Day Activity Center & Residential Children's Facility
Applicant: State of Hawaii, DAGS and Dept. of Health
TMK: 2-4-57:1
Location: Hilo, South Hilo District, County of Hawaii

Our comments on the subject application are as follows:

- We have no comments or objections to the application.
- Approval of the application shall be conditioned on the comments as noted below.
- We oppose the approval of the application for the reasons noted below.
 - All new building construction shall conform to current code requirements.
 - The subject dwelling/structure currently has outstanding violations which shall be corrected.
 - The _____ permit for the subject dwelling was never finalized.
 - The minimum setbacks shall be maintained as follows:
 - Residential structures - 3 ft. side, 3 ft. rear
 - Commercial structures - 5 ft. side, 5 ft. rear
 - The projections do not meet setback requirements and should be corrected.
 - No openings in the exterior wall are permitted less than _____ ft. from the property line.
 - The exterior wall or projections shall be constructed to provide a _____ hour fire resistive occupancy separation.

Page Two
RM Towill, Corporation
August 9, 1999

420 Westmole Blvd
Suite 411
Honolulu Hawaii 96817-0941
Telephone 808 842 1133
Fax 808 842 1937
eMail rmto@tdc-one.com



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- An approved automatic sprinkler system is required to substitute.
- The common wall shall be constructed to provide a _____ hour fire resistive area separation.
- Others: The island of Hawaii's Seismic Zone is 4 (refer to page 43).


STANLEY TAKEMURA, Acting Division Chief
Building Division

BK:ju

August 16, 1999

Mr. Stanley Takemura
Acting Division Chief
Department of Public Works, Building Division
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Takemura:

Subject: Draft Environmental Assessment for the Proposed Hilo Dry Academy Center and Residential Childrens' Facility, TNRK (3) 23-4-057: 01

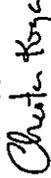
The following is in response to your comments of August 9, 1999, regarding the subject Draft EA:

1. All new building construction shall conform to current code requirements;
2. Page 43 of the Environmental Assessment will be corrected to: "All structures proposed for this project will be built according to standards for seismic zone 4, as established by the Uniform Building Code."

All comments and responses will be incorporated in the Final Environmental Assessment being submitted to the State Office of Environmental Quality Control.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,



Chester Koga, AICP

BERNARD J. CAVETANO
GOVERNOR



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

KAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
BRUNN K. BUNNAN
OLENIKI OSHIRO

IN REPLY REFER TO:

STP 8.9204

August 23, 1999

Mr. Chester Koga, AICP
R.M. Towill Corporation
420 Waiakamilo Road, Room 411
Honolulu, Hawaii 96817

Dear Mr. Koga:

Subject: Hilo Day Activity Center and
Residential Children's Facility
Draft Environmental Assessment (DEA)
TMK: 2-4-57: 01

Thank you for your transmittal requesting our review of the subject project.

It is not anticipated that the proposal will have a significant impact on our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

420 Waiakamilo Road
Suite 411
Honolulu Hawaii 96817-4941
Telephone 808 842 1132
Fax 808 842 1973
eMail rmto@rmto.com



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August 30, 1999

Mr. Kazu Hayashida
Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

Subject: Hilo Day Activity Center and Residential Children's Facility
Draft Environmental Assessment (DEA)
TMK: 2-4-57: 01

Thank you for your comments dated August 23, 1999 to the subject Hilo Day Activity Center and Residential Children's Facility DEA.

All comments will be included in the Environmental Assessment being submitted to the Office of Environmental Quality Control.

Should you have any questions or require additional information please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,

Chester Koga

Chester Koga, AICP

EDWARD J. CANTANO
Governor



STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
877 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813
TEL: (808) 547-0600

DONALD K. LAU
REGULATORY DIRECTOR

WALTER L. BRADSHAW
REGULATORY ASSISTANT

99.PEO/2586

SEARCHED	INDEXED
SERIALIZED	FILED
AUG 27 1999	
JULIE	

August 25, 1999

RM Towill, Corporation
Attention: Chester Koga, AICP
420 Waiakamilo Street, Room 411
Honolulu, Hawaii 96817

Dear Mr. Koga:

Re: Draft Environmental Assessment for the Hilo Day Activity Center and Residential Children's Facility

Thank you for the opportunity to review the subject draft assessment.

We have no comments to offer at this time.

Sincerely,

Donald K. Lau
Donald K.W. Lau
Executive Director

420 Waiakamilo Road
Suite 411
Honolulu, Hawaii 96817, AHI
Telephone 808 842 1133
Fax 808 842 1137
e-mail: rmtowill@rmc.com



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August 30, 1999

Mr. Donald K.W. Lau
Executive Director
Housing and Community Development Corporation of Hawaii
Department of Business, Economic Development & Tourism
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Lau:

Subject: Draft Environmental Assessment (DEA) for the Proposed Hilo Day Activity Center and Residential Children's Facility, TMK (3) 23-4-057: 01

Thank you for your comments dated August 25, 1999 to the subject Hilo Day Activity Center and Residential Children's Facility DEA.

All comments will be incorporated in the Final Environmental Assessment being submitted to the State Office of Environmental Quality Control.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,

Chester Koga
Chester Koga, AICP



STATE OF HAWAII
DEPARTMENT OF HEALTH
PO BOX 3378
HONOLULU, HAWAII 96801

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

DATE: 9/14/99

September 14, 1999

99-162/epo

Mr. Chester Koga, AICP
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

OP
9/14/99
MK

Dear Mr. Koga:

Subject: Draft Environmental Assessment (DEA)
Hilo Day Activity Center and Residential
Children's Facility
Hilo, Hawaii
TMK: 2-4-57: 1

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:
Wastewater

The subject project is located in the critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee.

Wastewater treatment and disposal have not been adequately addressed in the subject document. However, previous correspondence dated February 11, 1998 on the same property for the proposed Hawaii Veterans Memorial Center, tax map key number (3) 2-4-57: 01, indicates that the parcel is located within the County sewer service system. Therefore, we have no objections to Hilo Day Activity Center and Residential Children's Facility on the condition that wastewater is disposed of by means of the County sewer system.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Mr. Chester Koga, AICP
September 14, 1999
Page 2

99-162/epo

Should you have any questions, please contact the planning/Design Section of the Wastewater Branch at 586-4294.

Other Comments

Underground Injection Systems which receive wastewater or stormwater run-offs from the proposed development need to conform to the requirements of Title 11, Chapter 23, Hawaii Administrative Rules (HAR), "Underground Injection Control." Questions can be directed to the Safe Drinking Water Branch at 586-4258 in Honolulu.

The proposed kitchen facility would need to meet the requirements of Chapter 11-12, "Food Establishment Sanitation," HAR.

Construction activities must comply with the provisions of Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control."

- a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the rules.
- b. Construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers.
- c. The contractor must comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit.

Should there be any questions on these matters, please contact Mr. Aaron Ueno, District Environmental Health Program Chief, Hilo District Health Office at 933-0917.

Sincerely,

GARY GILL

Deputy Director for
Environmental Health

c: MWB
HDOH

430 Waiakama Road
Suite 411
Honolulu, Hawaii 96817-6943
Telephone 808 842 1133
Fax 808 842 1177
eMail rmtowill@rmtowill.com



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Stephens K. Yamashiro
Mayor



Virginia Goldstein
Deputy Mayor
Russell Kokubun
Deputy Director

County of Hawaii

PLANNING DEPARTMENT
23 Alapai Street, Room 109 - Hilo, Hawaii 96720-4151
(HAWAII) 947-4328 • Fax (HAWAII) 941-8743

October 4, 1999

Mr. Gary Gill
Deputy Director
Environmental Health
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Gill:

Subject: Draft Environmental Assessment for the Proposed
Residential Children's Facility, Hilo, Hawaii, TMK 2-4-57: 01

The following is in response to your comments dated September 21, 1999 to the subject Draft EA:

1. The applicant understands that the proposed project is located within the critical wastewater disposal area as determined by the Hawaii County Wastewater Advisory Committee. The proposed project will obtain approval by the appropriate State and County agencies to connect to the existing County sewer service system at the site.
2. The applicant also understands that the proposed project must comply with all applicable the requirements of Title 11, Chapter 23, Hawaii Administrative Rules, "Underground Injection Control", Chapter 11-12, "Food Establishment Sanitation", and Chapter 11-46, "Community Noise Control".

Thank you for your assistance and review of our project. All comments and responses will be incorporated in the Final Environmental Assessment being submitted to the State Office of Environmental Quality Control.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,

Chester Koga

Chester Koga, AICP

DLT/CTK

cc: Franklin Wong & Associates

September 21, 1999

Mr. Chester Koga, AICP
R.M. Towill Corporation
420 Waiakama Street, Room 411
Honolulu, HI 96817

Dear Mr. Koga:

Draft Environmental Assessment for the Hilo Day Activity Center
and Residential Children's Facility
TMK 2-4-57: 1, Waiakoa, South Hilo, Hawaii

Thank you for your letter dated July 22, 1999, transmitting a copy of the above-described draft environmental assessment (DEA) for our review and comment.

We have completed our review and have the following comments to offer:

1. The subject property consists of approximately 11.126 acres according to our tax maps and the Real Property Tax Division. The project summary and description within the DEA identifies the subject property as 11.26 acres. Please verify actual land area.
2. Page 25, Section 3.10.1-Land Use - The project site, consisting of approximately 2.5 acres within the larger 11.126-acre parcel, is situated within an area designated for Medium Density Urban uses by the Hawaii County General Plan. The project site is designated Urban by the State Land Use Commission and zoned Multiple Family Residential-1,000 square feet per unit (RM-1) by the County. The project site is not located within the County's Special Management Area (SMA).

The establishment of a day care facility and residential care home on the project site is considered a permitted use within the RM-1 zoned district pursuant to Section 25-4-1(c) of the Hawaii County Zoning Code. No land use approvals or permits will be required to allow the establishment of the proposed facility within the project site.

Mr. Chester Koga, AICP
R.M. Towill Corporation
Page 2
September 21, 1999

400 Waialua Road
Suite 411
Honolulu, Hawaii 96817-4941
Telephone 808 842 1133
Fax 808 842 1137
email rmt@towill.com



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Construction Management

October 4, 1999

3. Page 37, Section 5.2.1-Department of Planning - Plan Approval will be required prior to securing a building permit for the construction of the proposed facility. This review will ensure that the proposed facility complies with all of the requirements of the Zoning Code. The requirements of Plan Approval review were detailed in our previous letter to you dated March 4, 1999.

4. Based on the information and analysis contained within the DEA, we support the anticipated Finding of No Significant Impact (FONSI).

Thank you for allowing our office the opportunity to comment on the DEA. Please contact Daryn Arai of this office should you have any questions.

Sincerely,


VIRGINIA GOLDSSTEIN
Planning Director

DSA:BP
C:\p07\CLM\1999\LEap\01.dwg

c: OEQC
State-DAGS

Ms. Virginia Goldstein
Planning Director

Planning Department
County of Hawaii
25 Aupuni Street, Room 109
Hilo, Hawaii 96720-4252

Dear Ms. Goldstein:

Subject: Draft Environmental Assessment for the Proposed
Residential Childrens' Facility, Hilo, Hawaii, TMK 2-4-57: 01

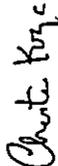
The following is in response to your comments dated September 21, 1999 to the subject Draft EA:

1. Upon verification of tax maps and the Real Property Tax Division, the acreage for the subject property will be corrected to 11.126-acres.
2. Although the proposed project will not require land use approvals or permits, it will require a Plan Approval prior to securing a building permit for the construction of the proposed facility.

Thank you for your assistance and review of our project. All comments and responses will be incorporated in the Final Environmental Assessment being submitted to the State Office of Environmental Quality Control.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,



Chester Koga, AICP

DLT/CTK

cc: Franklin Wong & Associates

• BENJAMIN J. CAISTANO
DIRECTOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

216 SOUTH BERTANHA STREET
SUITE 101
HONOLULU, HAWAII 96813
TELEPHONE: 528-6415
FACSIMILE: 528-6186

September 22, 1999

GEMEVIEVE SALMONSON
DIRECTOR

Mr. Gordon Matsuoza, Administrator
Division of Public Works
Department of Accounting and General Services
September 22, 1999
Page 2 of 2

Thank you for the opportunity to comment. If you have any questions, please call Leslie Segundo,
Environmental Health Specialist at 586-4185.

Sincerely,

GEMEVIEVE SALMONSON
Director

Mr. Gordon Matsuoza, Administrator
Division of Public Works
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96813

Dear Mr. Matsuoza:

The Office of Environmental Quality Control has reviewed the draft environmental assessment (DEA) for
the Hilo Day Activity Center and Residential Children's Facility, Island of Hawaii,
TMK 2-4-57: 01. We offer the following comments for your response and consideration.

1. NEED FOR EARLY CONSULTATION PRIOR TO PREPARATION OF A DRAFT
ENVIRONMENTAL ASSESSMENT

Pages 38 and 39 of the DEA contains a list of organizations and agencies to be consulted during the 30-
day comment period. The Hawaii Administrative Rules at section 11-200-9(a)(1) require the proposing
agency to "[s]eek, at the earliest practicable time, the advice and input of the county agency responsible for
implementing the county's general plan for each county in which the proposed action is to occur, and
consult with other agencies having jurisdiction or expertise as well as those citizen groups and individuals
which the proposing agency reasonably believes to be affected." A complete reading of section 11-200-9(e)
shows that such consultation (commonly referred to as "early consultation") takes place before the DEA is
PREPARED.

In the final environmental assessment, please include a list of agencies, organizations and individuals
contacted prior to preparation of the DEA (such as the County of Hawaii Planning Department). In
accordance with the content requirements for environmental assessments (Section 11-200-10, Hawaii
Administrative Rules), include copies of "written comments and responses to the comments under the
early consultation provisions of section 11-200-9(a)(1)...."

2. SUSTAINABLE BUILDING DESIGN

Please find enclosed a copy of draft "Guidelines for Sustainable Building Design in Hawaii". Please review
and indicate what techniques (if any) the Department will incorporate into the design of the facility.

cc Mr. Norman Sahara, DAGS
Mr. Chester Koga, R. M. Towill Corporation

Enclosure

430 Wai'anae Road
Suite 411
Honolulu, Hawaii 96817-4941
Telephone: 808 842 1133
Fax: 808 842 1937
email: rmw@rmw-one.com



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Engineering
Environmental Sciences
Photogrammetry
Surveying
Construction Management

October 4, 1999

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
Department of Health
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment for the Proposed Residential
Childrens' Facility, Hilo, Hawaii TMK 2-4-57: 01

The following is in response to your comments dated September 22, 1999 to the subject Draft EA:

1. The location of the proposed facility included a thorough research of the proposed site and surrounding area through research of existing and proposed projects for the area. The site selection was made in consultation with other agencies including the Department of Land and Natural Resources Land Division. While a more thorough consultation may have been desirable, it was not deemed necessary for the selection of a project site.
2. The proposed project will incorporate various sustainable building techniques in the design and construction of the proposed Residential Childrens' Facility. The Final EA will provide detailed description and explanation of these various techniques.

Thank you for your assistance and review of our project. All comments and responses will be incorporated in the Final Environmental Assessment.

Should you have any questions or require additional information, please do not hesitate to contact Debra Tom or myself at (808) 842-1133.

Very truly yours,

Chester Koga, AICP

DLT/CTK

cc: Franklin Wong & Associates

Appendix B

An Inventory Survey of an Additional Unsurveyed Portion of
TMK: 2-4-57:1, Land of Waiakea, South Hilo District
Island of Hawaii

Scientific Consultant Services, Inc.

January 1999

SCS Project Number 161-1

**AN INVENTORY SURVEY
OF AN ADDITIONAL UNSURVEYED PORTION OF
TMK: 2-4-57:1, LAND OF WAIĀKEA, SOUTH HILO DISTRICT,
ISLAND OF HAWAII**

Prepared By:
Leann McGerty, B.A.
and
Robert L. Spear Ph.D.
January 1999

Prepared for:
R.M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, HI 96817

SCIENTIFIC CONSULTANT SERVICES Inc.

711 Kapiolani Blvd. Suite 777 Honolulu, Hawaii 96813

ABSTRACT

At the request of Chester Koga of R.M. Towill Corporation, Scientific Consultant Services, Inc. (SCS) conducted an Inventory Survey on the remaining unsurveyed portion of TMK:2-4-57: 1, Land of Waiākea, South Hilo District, Island of Hawai'i

During the course of the survey, 13 archaeological features were identified including various shaped rock mounds, walls of various lengths, and a rock faced terrace. These features were interpreted as structures related to sugar cane cultivation, all of which are associated with Site 19432 (May 1994).

All of the features are considered no longer significant as sufficient data, in the form of photographs, maps, notes, and plan views have been collected. No further work is recommended for the project area.

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INTRODUCTION

At the request of Chester Koga of R.M. Towill Corporation, Scientific Consultant Services, Inc. (SCS) conducted an Inventory Survey on the remaining unsurveyed portion of TMK:2-4-57: 1, Land of Waiākea, South Hilo District, Island of Hawai'i (Figure 1).

The archaeological fieldwork was conducted during January 1999. Fieldwork was carried out by Leann McGerty (Field Supervisor), and Randy Ogg (Field Assistant) under the overall direction of Robert L. Spear, Ph.D.

PHYSICAL SETTING

The project area was located in Waiākea Ahupua'a, South Hilo District, Island of Hawai'i (Figure 2). The project area consisted of a part of por. 1 which measured approximately 360 ft by 300 ft. It was bounded on the south by previously archaeologically mitigated section of por. 1, on the west by The Episcopal Church in Hawai'i, on the north by houses, and on the east by the Hilo Meishoin Church.

The present project was situated in McEldowney's Zone II Upland Agricultural Zone (1979). This zone began immediately behind the coastal settlement zone and extended inland approximately to the 1,500 ft. elevation. The cultural landscape in this zone consisted of "Scattered huts, emphasized by adjacent garden plots and small groves of economically beneficial tree species, dotted this expanse" (McEldowney 1979:18).

By roughly 1845, this traditional cultural landscape had changed with the disappearance of the gardens and associated habitations and the growth of a Western-style town between the Waiolama and Wailuku Rivers (McEldowney 1979:39).

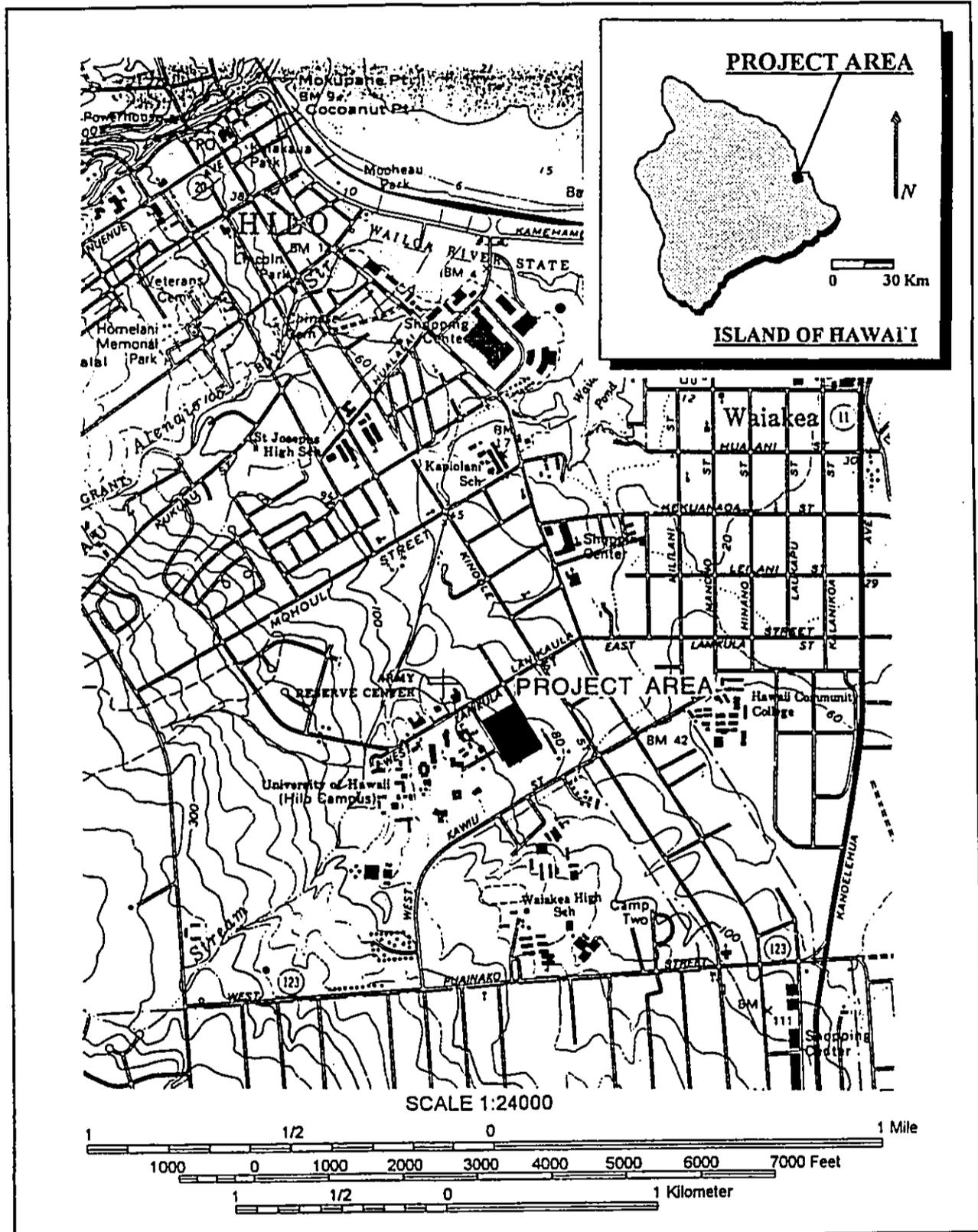


Figure 1: USGS Hilo Quadrangle Showing Project Area.

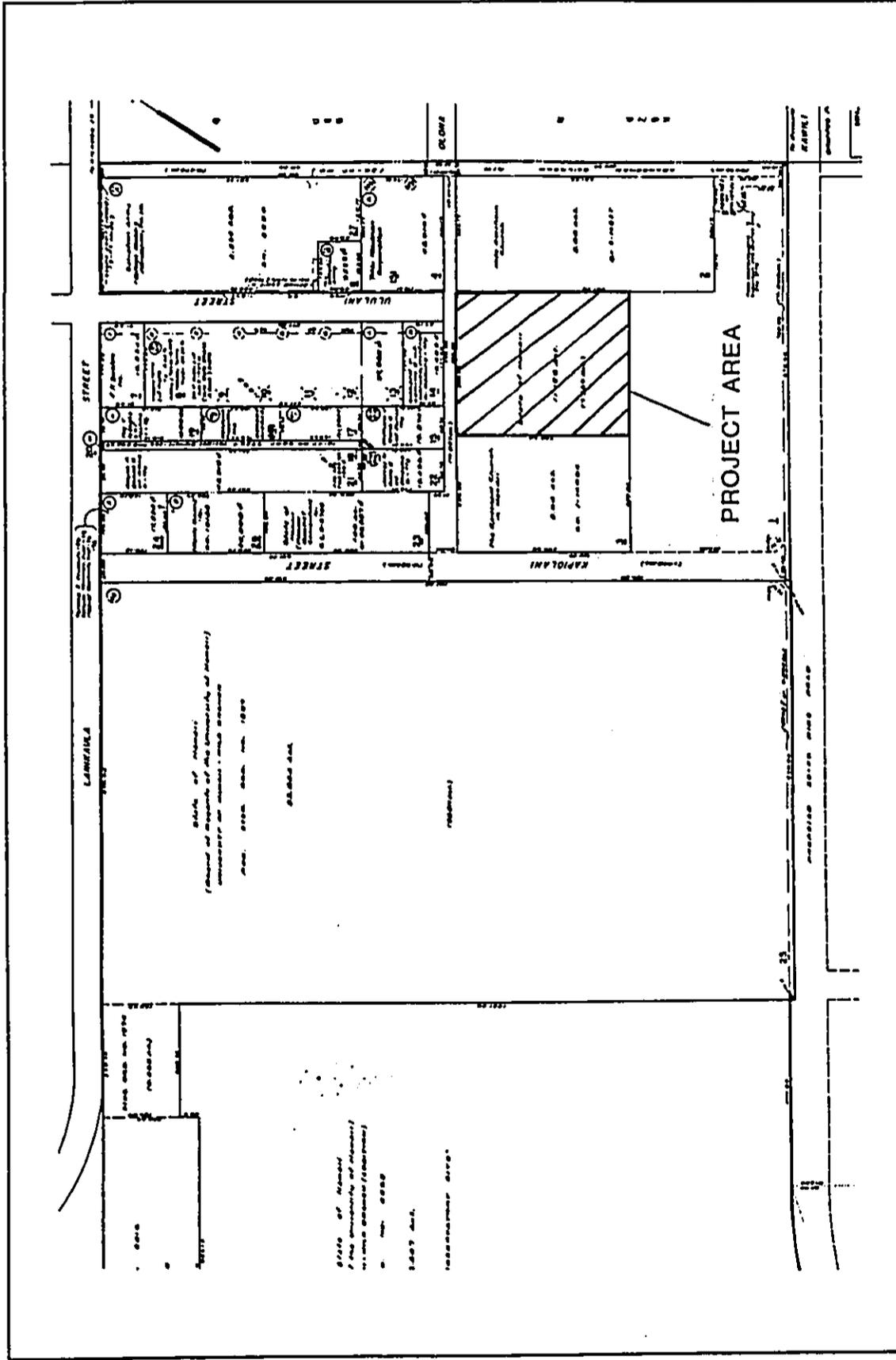


Figure 2: Tax Map Key TMK 2-4-57 Showing Project Area (Shaded).

PREVIOUS ARCHAEOLOGY

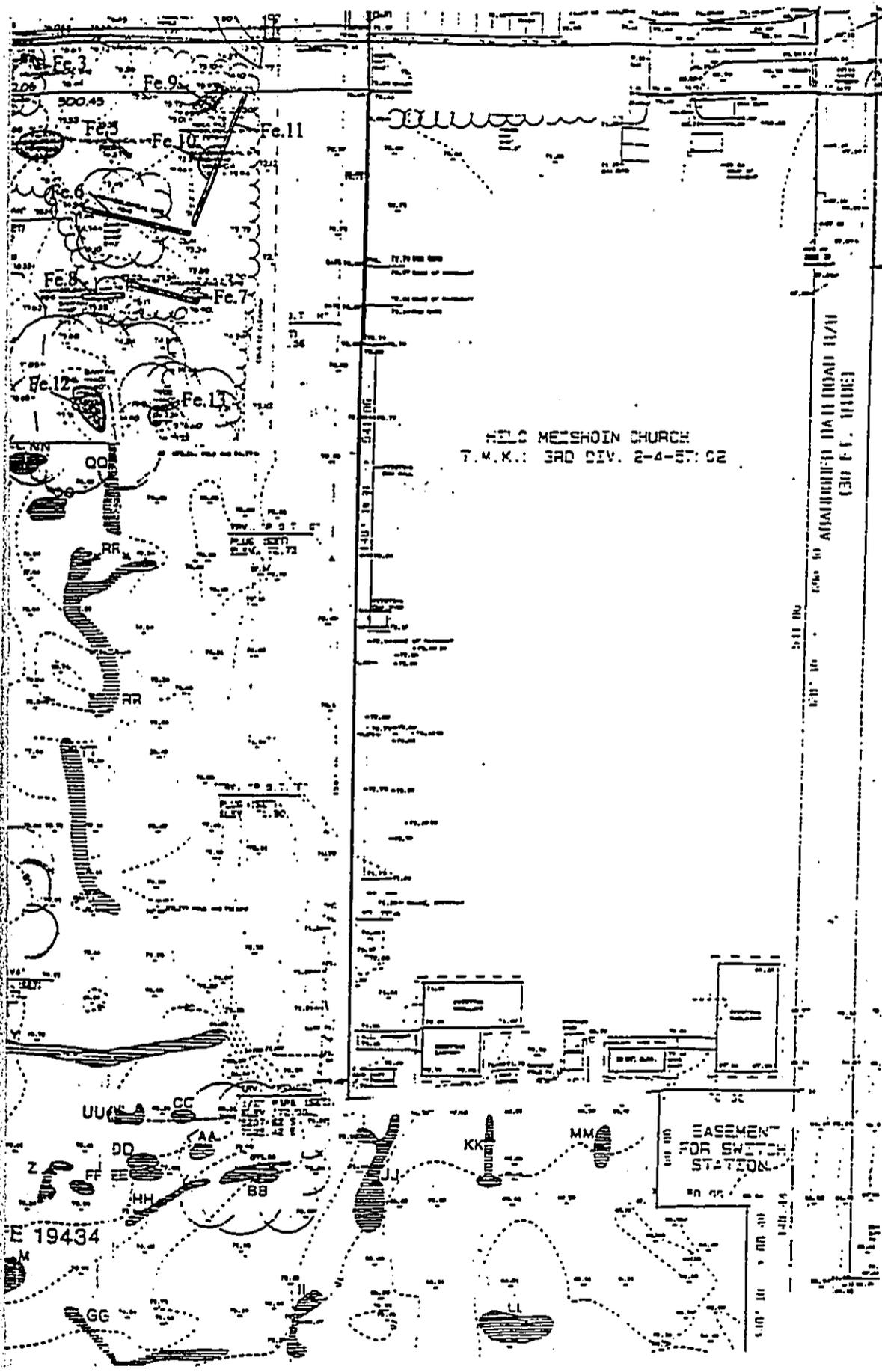
The reader is directed to both Hunt and McDermott (1994) and Malay *et al.* (1994) who provide a detailed discussion of the archaeology conducted in the general Hilo area, describe the pre-Contact Hawaiian settlement pattern, and review the post-Contact impacts to this portion of Hawai'i Island.

McEldowney (1972) presented an environmentally based land use pattern for Hilo and its vicinity. She named five environmental zones: Coastal Settlement, Upland Agricultural, Lower Forest, Rainforest, and Sub-Alpine or Montane. The present project area was located in the Upland Agriculture Zone (½ mile to 1,500 feet inland) but also associated with the Coastal Settlement.

The Upland Agricultural Zone was described as being planted in *kalo* (*Colocasia esculenta*), bananas, breadfruit, *kukui* (*Aleurites moluccana*) and other culturally useful plants (McEldowney 1979). Traditionally, swidden or slash-and-burn agriculture was believed to have taken place in this zone, greatly altering the natural vegetation. Historically, the upland zone was described as containing scattered huts with adjacent garden plots and small groves of important trees extending up to the edge of the forest (*ibid.*).

The Coastal Settlement Zone was the most densely inhabited and the most intensively used zone. Besides the cultivation of important food crops such as *kalo* and bananas, the Royal fish ponds were located in coastal Waiākea. Not only were the ponds an important resource for the *ali'i* but, they provided an ideal habitat for water birds adding to the variety of protein available (*Ibid.*).

Previous archaeology was conducted south of, and immediately adjacent to, the project area and identified four archaeological sites (19431, 19432, 19433 and 19434) consisting of a total of 47 + structural features (Maly *et al.* 1994, Figure 3). The sites included both single and multiple components and their condition ranged from poor to good. Formal feature types consisted primarily of mounds, walls, mound/walls, and an enclosure. The functional feature types principally included agriculture and habitation (Maly *et al.* 1994:22). A volcanic glass flake and a charcoal sample were recovered from Site 19431, a possible historic habitation with



FIELD METHOD CHURCH
T.M.K. 3RD DIV. 2-4-87:02

(EARTH 1.00)
UNIMPROVED DRAINAGE 11/11

EASEMENT
FOR SWITZER
STATION

E 19434

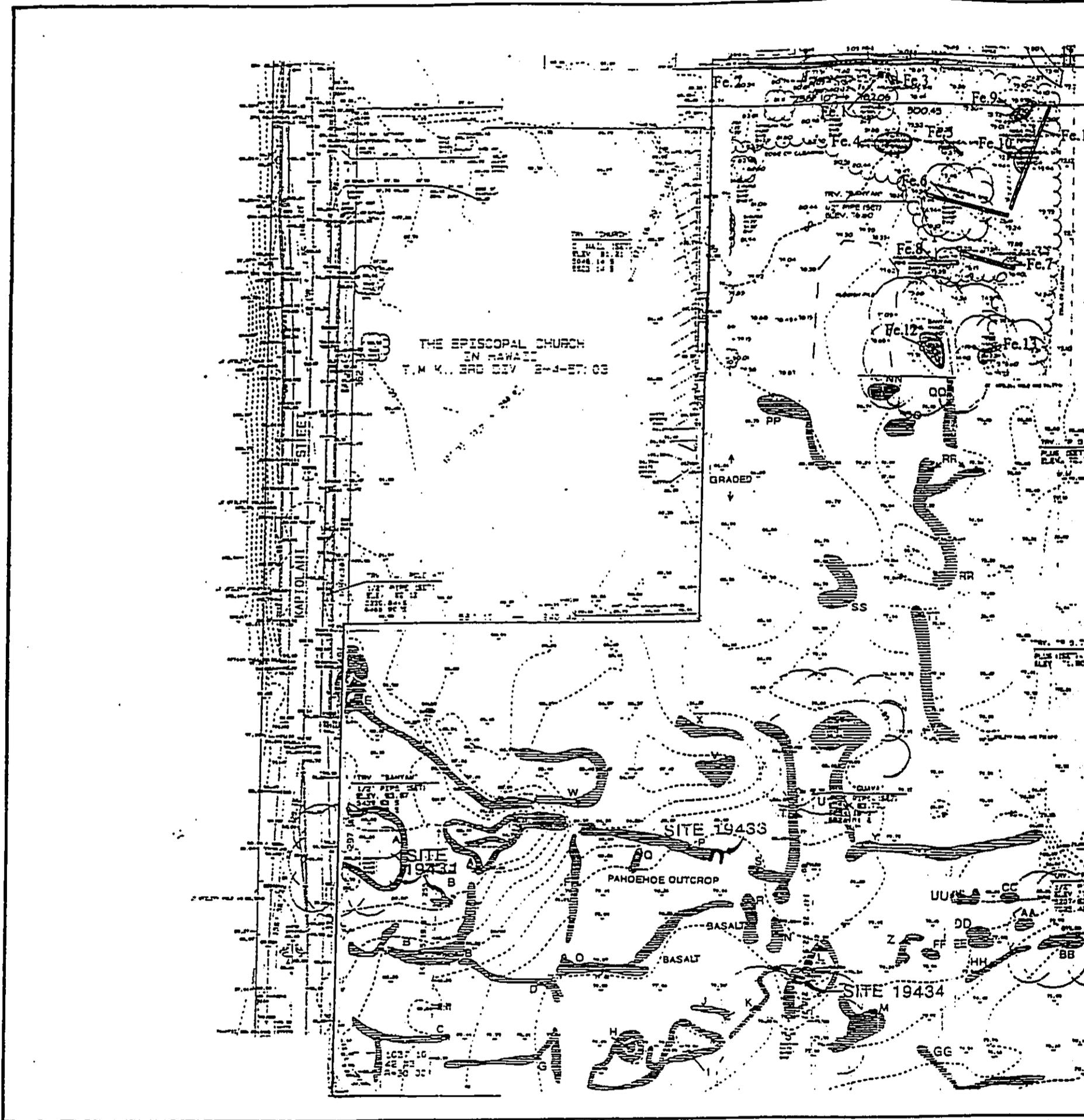


Figure 3: Planview Map of Project Area with Previous and Present Archaeological Sites and Features Identified.

an associated agricultural site. This resulted in a conventional radiocarbon date of 490 ± 70 B.P. and suggested the possibility of a pre-Contact subsurface cultural layer.

Sites 19432 was identified as an historic site related to historic agriculture, including features possibly associated with loading and transporting sugar cane. Sites 19433 and 19434 were identified as possible historic habitations.

In 1995, SCS conducted data recovery on these four sites (Spear 1995). Excavation at Site 19431 found no evidence of a buried pre-Contact cultural layer. The single previously identified volcanic glass flake and associated radiocarbon date were interpreted as examples of the "...subtle evidence on Hawaiian use of the area ... found only in sparse and unpredictable spatial distribution" (Hunt and McDermott 1994:108).

Because of the similarity between the architectural features at Site 19432 and those identified in the Pū`āinakō Street extension project area, this site was interpreted as the result of sugar cane cultivation (Hunt and McDermott 1994:108; McGerty and Spear 1999).

Sites 19433 and 19434 were both interpreted as temporary historic habitation areas, most likely occupied after use for agriculture (Spear 1995).

According to McEldowney (1979) the Upland agricultural Zone would have been greatly altered by pre-Contact swidden activities. However, evidence of either permanent or temporary habitation with their associated garden plots and some groves of traditionally useful trees might be identified.

Given the extensive sugar cane activities that occurred from the 1840s to the 1940s, the results of earlier surveys at Pū`āinakō, and surveys conducted at the southern end of the lot containing the project area, it would appear that evidence of traditional Hawaiian activities have been destroyed by the historic cultivation of sugar. Based on the results of Hunt and McDermott (1994), Maly *et al.* (1994), Spear (1995), McGerty and Spear (1999) it would be most likely to identify features relating to sugar cane cultivation.

METHODOLOGY

Discussions between Dr. Spear and the State Historic Preservation Division (Dr. Pat McCoy) determined the scope of the survey. It was decided that no excavation would be necessary within the project area since sufficient information was obtained from the previous excavations in the southern portion of parcel 1. This was based on the assumption that no unusual or unique architectural features would be identified in the field, confirmed through a reconnaissance by Dr. Spear in July 1998. The scope-of-work was to focus on the mapping and recording of the identified surface features in the project area.

It became evident upon arrival at parcel 1, that a large portion of the project area had been recently bulldozed (Figure 4).



Figure 4: Photograph of Bulldozer Pile at Feature U.

The few features that had been left in the bulldozed area were anchored by large banyan trees and, therefore, survived. Pedestrian sweeps were conducted throughout the remaining uncleared section. One hundred percent of the project area was covered by two archaeologists walking two to three meters apart. Cultural features were assigned feature numbers and flagged

allowing accurate plotting on the project map. Photographs were taken of each feature and the mapping of sites and features was then conducted with tape and compass.

The north-west corner of the project area was heavily disturbed by banana cultivation. Identified features in the north-east were flagged and surveyors from Imata and Associates, Inc. (Wayne A. Subica, Jr.) surveyed in the architectural structures which were then placed on their topographic Map.

All features were photographed using color film and a photo record was kept. All descriptions and drawings were recorded on appropriate SCS field forms. The materials from this project are stored at the office of Scientific Consultant Services, Inc., Honolulu, Hawai'i.

SURVEY RESULTS

Thirteen features were identified within the uncleared portion of the project area. The features included a single terrace facing, ten rock mounds of various shapes and two rock walls of different lengths (Figure 5).

All the features were constructed from small to medium boulder sized angular to sub-angular `a`a chunks. Historic trash was scattered throughout the remaining project area.

FEATURE 1

Feature 1 was a rock mound/earthen terrace facing located at the far northern end of the project area (Figure 6). Its total length, including the mounded end, measured 12.00 m. The width was undetermined as the terrace, extending to the south, had been disturbed. The maximum height was 1.17 m. The eastern end of the feature became a circular rock mound measuring 2.80 m by 2.40 m by 1.17 m high (Figure 7). The western end had been disturbed (Figure 8). Feature 1 was interpreted as a clearing mound associated with plantation activities.

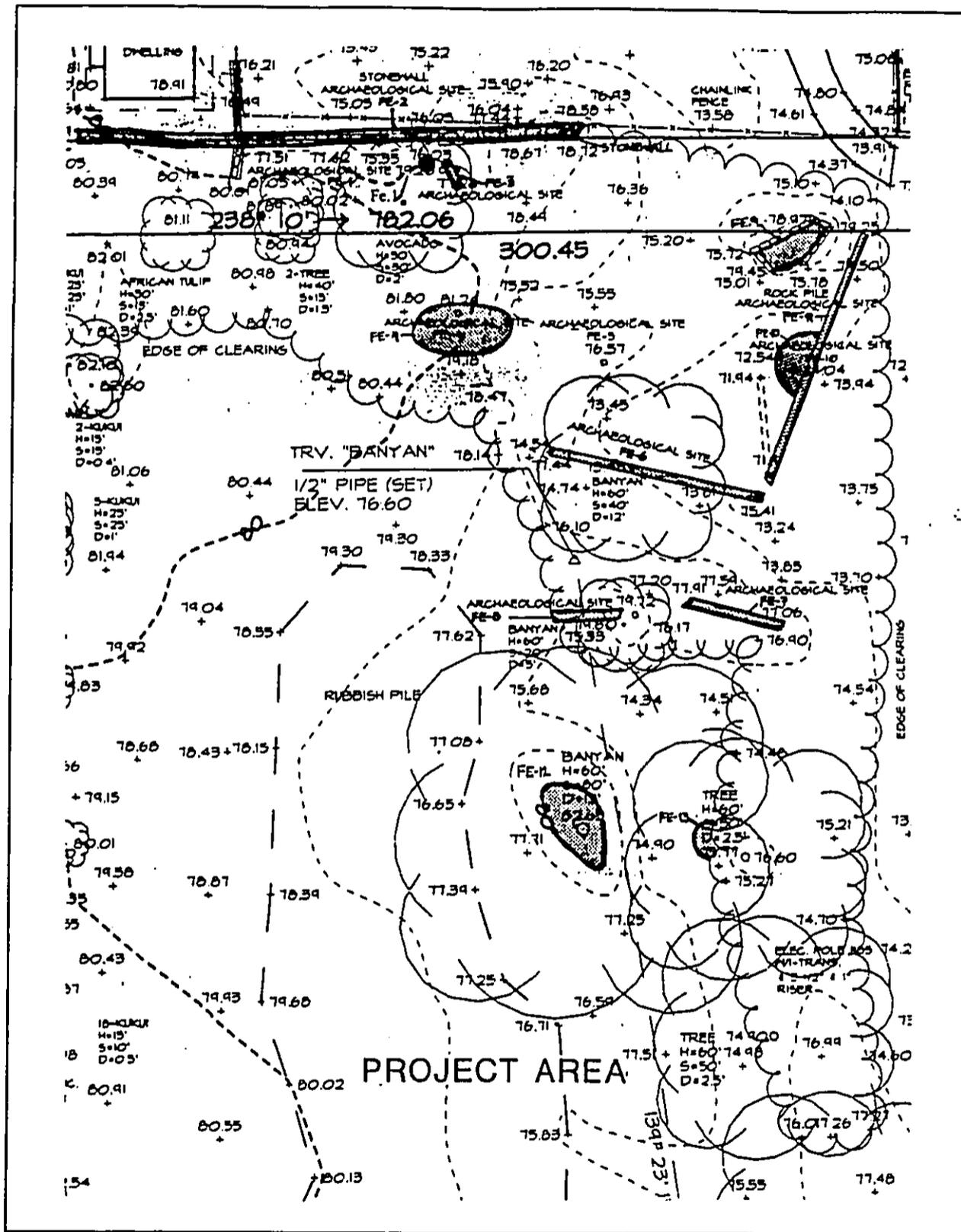


Figure 5: Planview Map of 13 Newly Identified Features in the Project Area.



Figure 6: Photograph of Feature 1, a Rock Mound. View to Southeast.

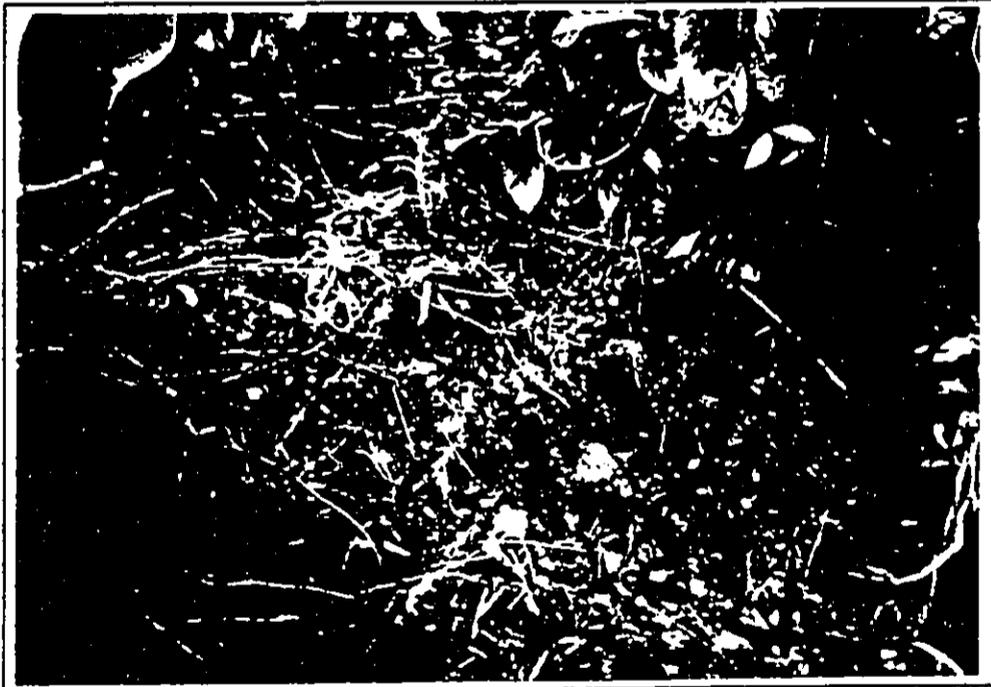


Figure 7: Photograph of Western End of Feature 1, a Rock/Earth Facing. View to South.

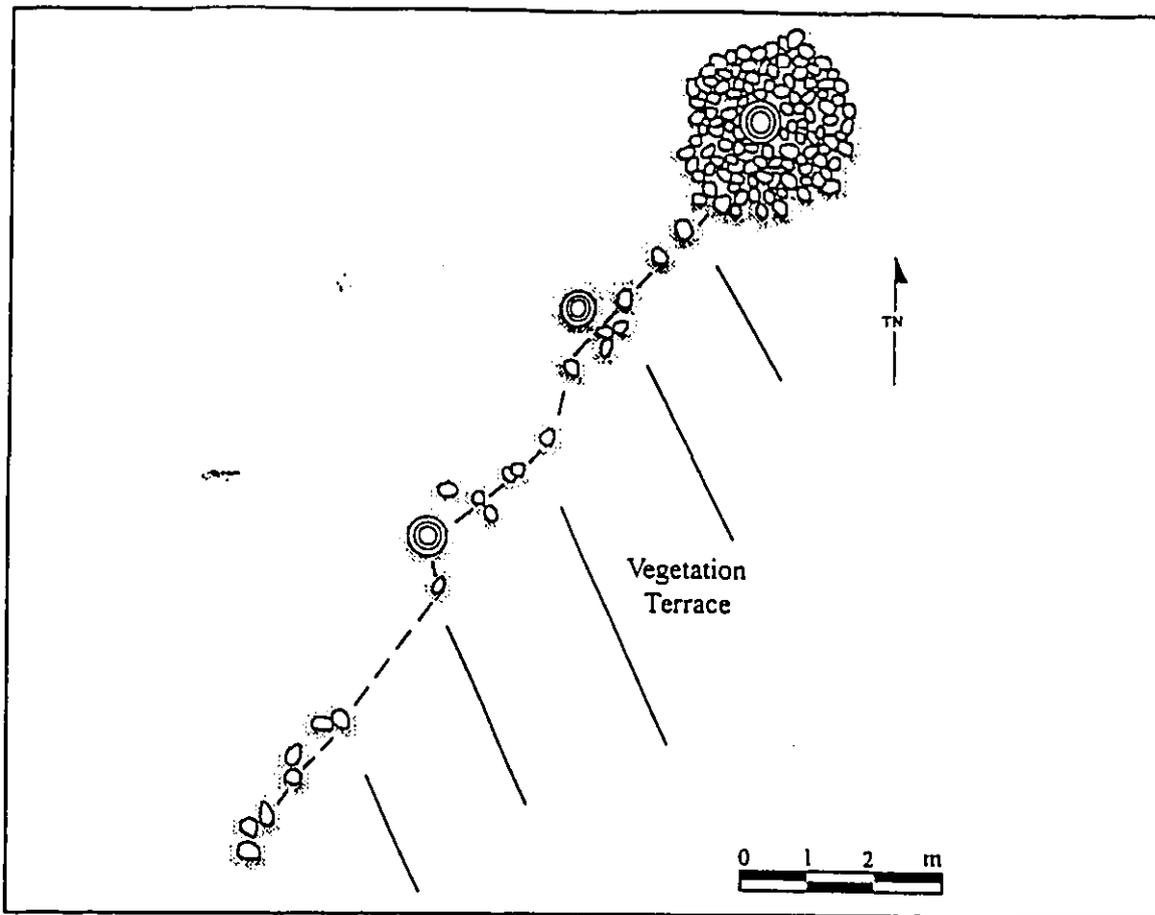


Figure 8: Planview of Feature 1.

FEATURE 2

Feature 2 was a bi-faced, core-filled basalt rock wall located on the northern boundary of the project area (Figure 9). It measured approximately 45.60 m by 0.92 m by 0.88 m high and had collapsed at both its east and west ends (Figure 10). The owner of the property directly to the north of the wall, informed us that her husband had built the wall many years ago when they first moved on to their land (the exact date is not known but a reference to the 1960s was understood).

FEATURE 3

Feature 3 was a small, stacked linear rock mound on which were piled rotting cut logs (Figure 11). It measured 2.80 m by 1.35 m by 0.74 m high (Figure 12). Feature 3 was interpreted as a clearing mound associated with plantation activities.



Figure 9: Photograph of Feature 2, a Stone Wall. View to Southeast.

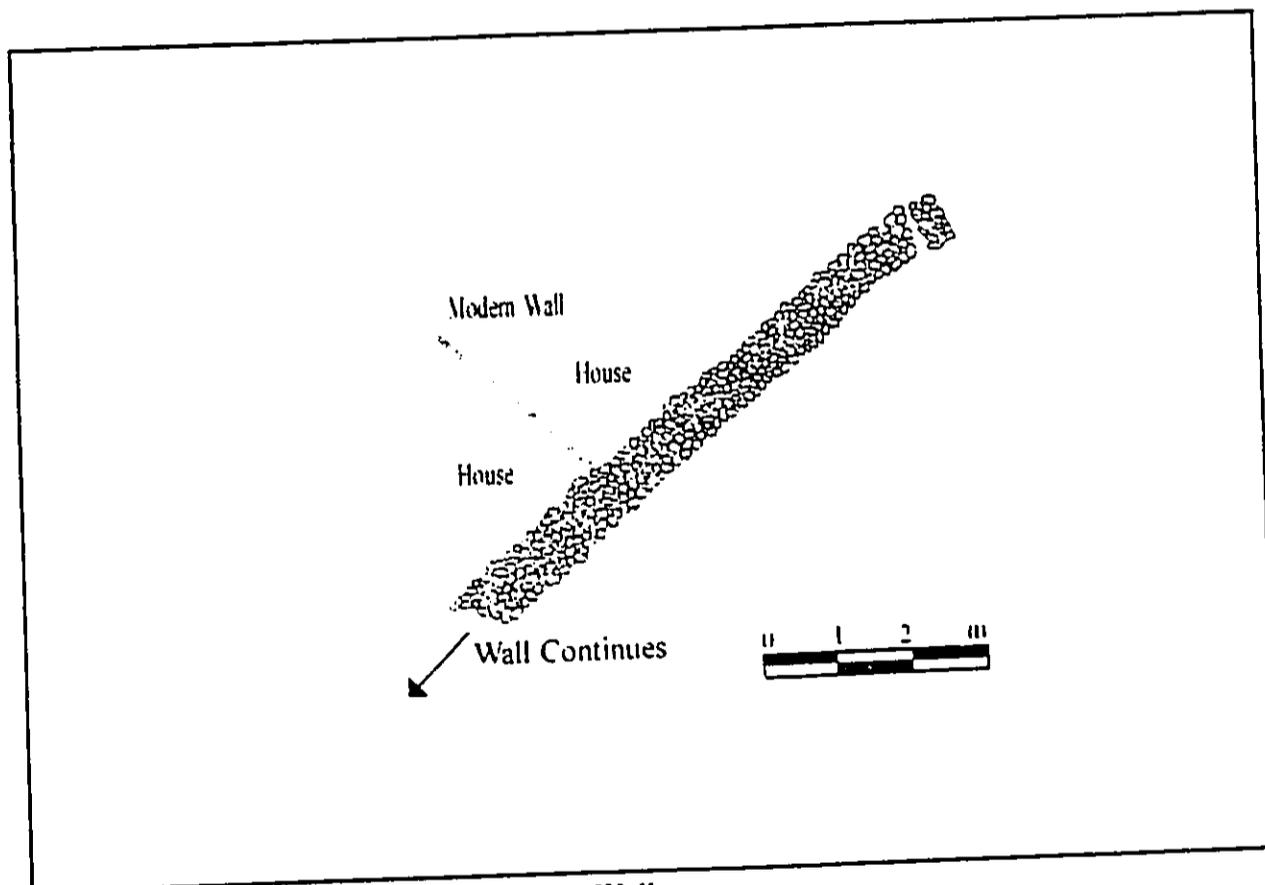


Figure 10: Planview of Feature 2, a Stone Wall.



Figure 11: Photograph of Feature 3, a Rock Mound. View to Northeast.

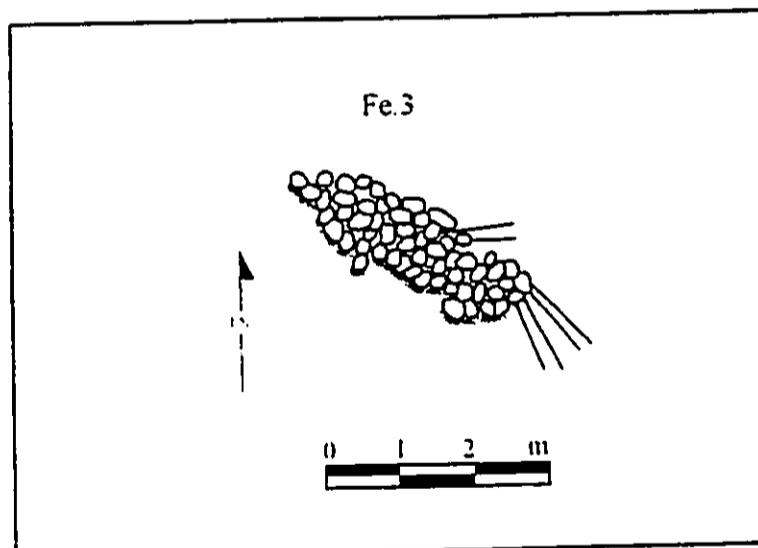


Figure 12: Planview of Feature 3, a Rock Mound.

FEATURE 4

Feature 4 was a large, stacked rock/earthen mound located south-east of Feature 1. It measured 13.30 m by 8.40 m by 2.00 m high and was heavily eroded on the south side of this feature had been impacted by previous bulldozing activities (Figure 13). A small, low stacked rock mound was located on the southeast section of the mound (3.40 m by 0.75 m by 0.36 m high; Figure 14). This feature was interpreted as a clearing mound associated with plantation activities.



Figure 13: Photograph of Feature 4, a Tumbled Stone/Earthen Mound.
View to South.

FEATURE 5

Feature 5 was a small, stacked linear rock mound located approximately 9 m to the east of Feature 4 (Figure 15). It measured 3.35 m by 1.70 m by 1.25 m high (Figure 16). Feature 5 was interpreted as a clearing mound associated with plantation activities.

FEATURE 6

Feature 6 was a bi-faced rock mound extending in an east-west direction (Figure 17). It measured 22.40 m by 3.90 m by a maximum height of 1.50 m (Figure 18). A large banyan tree grew out of the center of the mound holding the feature together. At the eastern end of the

UNIVERSITY OF CALIFORNIA, BERKELEY

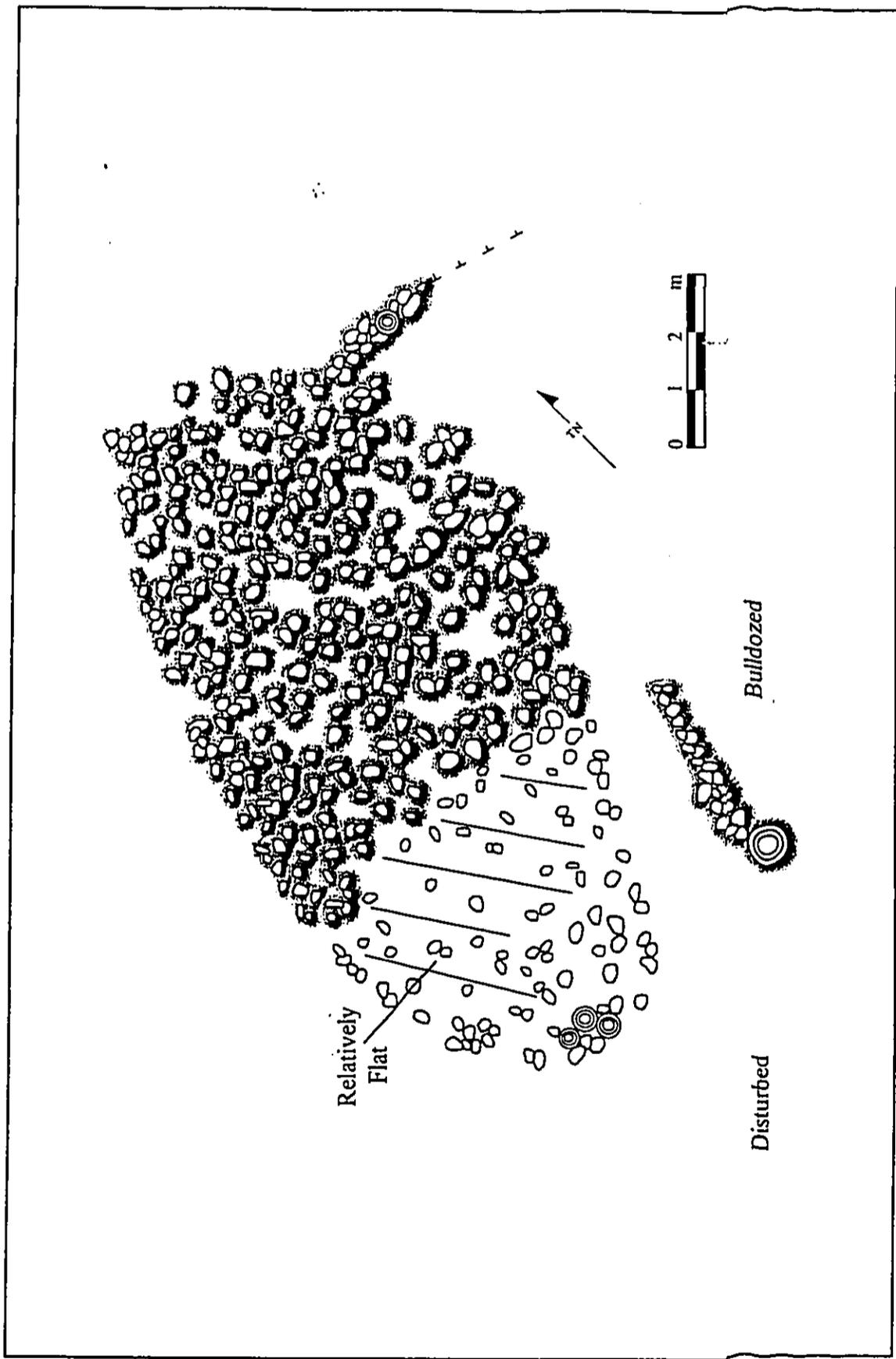


Figure 14: Planview of Feature 4, a Tumbled Stone/Earthen Mound.



Figure 15: Photograph of Feature 5 Rock Wall/ Mound. View to North.

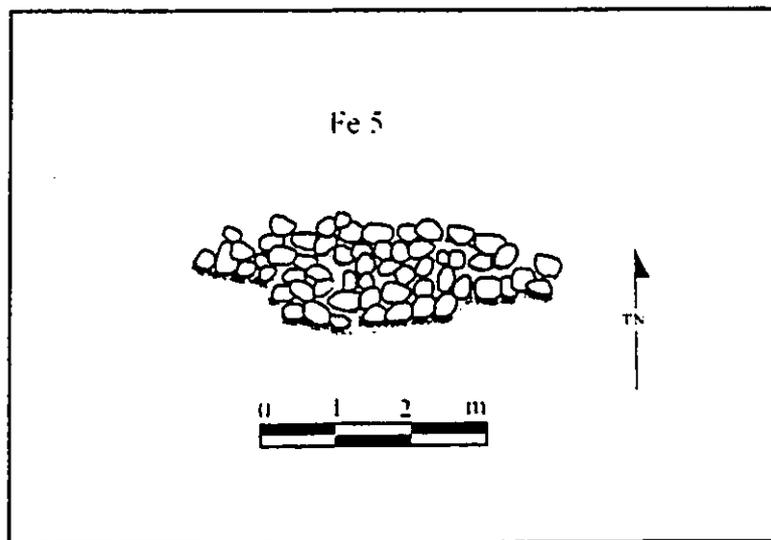


Figure 16: Planview of Feature 5, a Rock Wall/Mound.



Figure 17: Photograph of Feature 6, a Stacked Wall/ Mound. View to South.

mound, a passage was evident and the remaining mound section appeared to curve to the south several meters. At the western end, a small, stacked segment of wall extended a short distance before it had been altered by recently deposited bulldozer push (Figure 19). Feature 6 was interpreted as a clearing mound associated with plantation activities.

FEATURE 7

Feature 7 was a linear mound located approximately seven meters to the south of Feature 6 (Figure 20). It measured 10.50 m by 2.10 m by 0.96 m high (Figure 21). The mound was stacked from two to three courses on its west end, dwindling down to one course high on the east end. Feature 7 was interpreted as a clearing mound associated with plantation activities.

FEATURE 8

Feature 8 was a linear mound located a few meters to the south-west of Feature 7 (Figure 22). It measured 7.30 m by 2.20 m by 0.98 m high and was partially faced on the north and south sides (Figure 23). The eastern end was held together by a banyan tree growing out of the mound and the western end had been altered by recently deposited bulldozer push. Feature 8 was interpreted as a clearing mound associated with plantation activities.

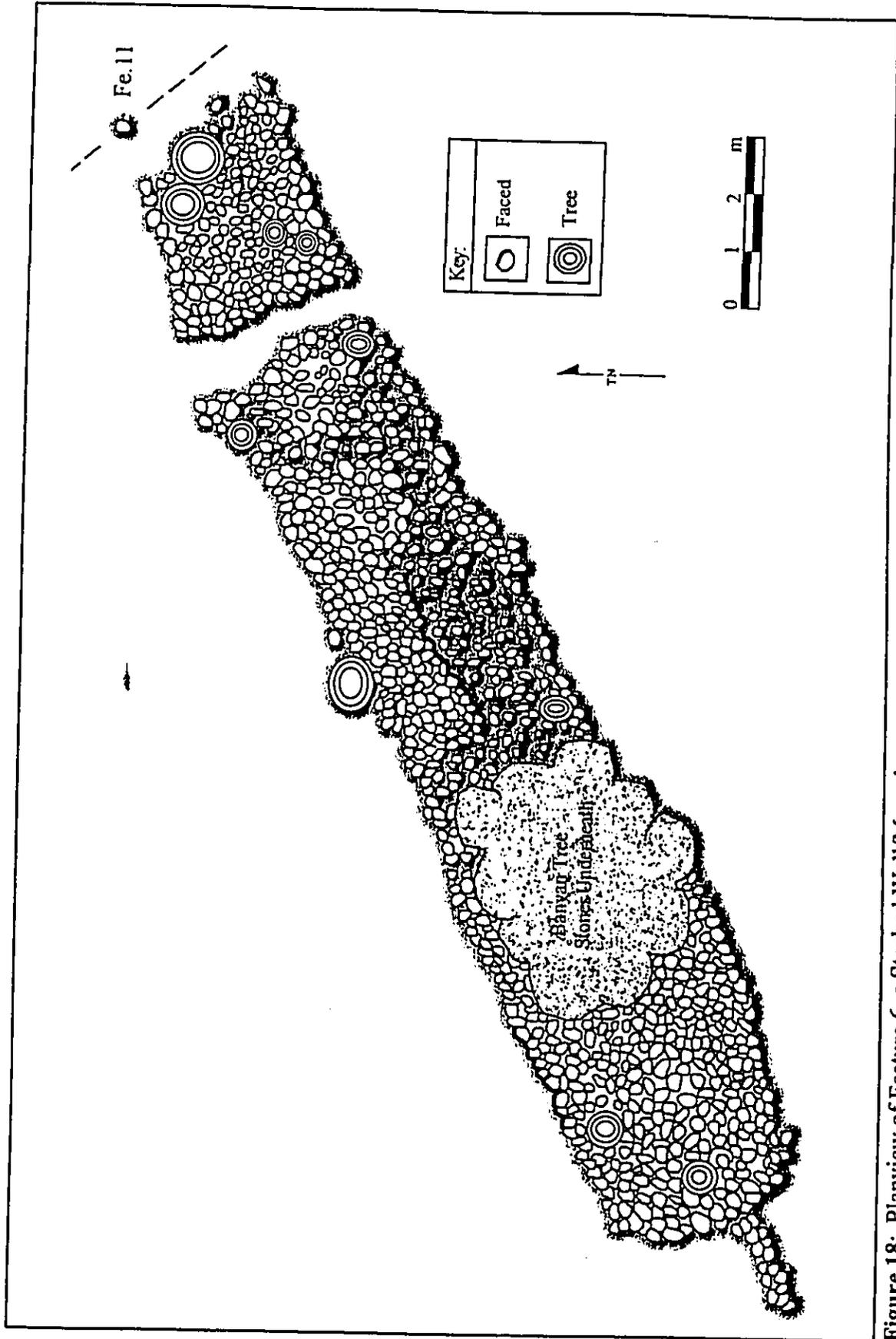


Figure 18: Planview of Feature 6, a Stacked Wall/Mound.

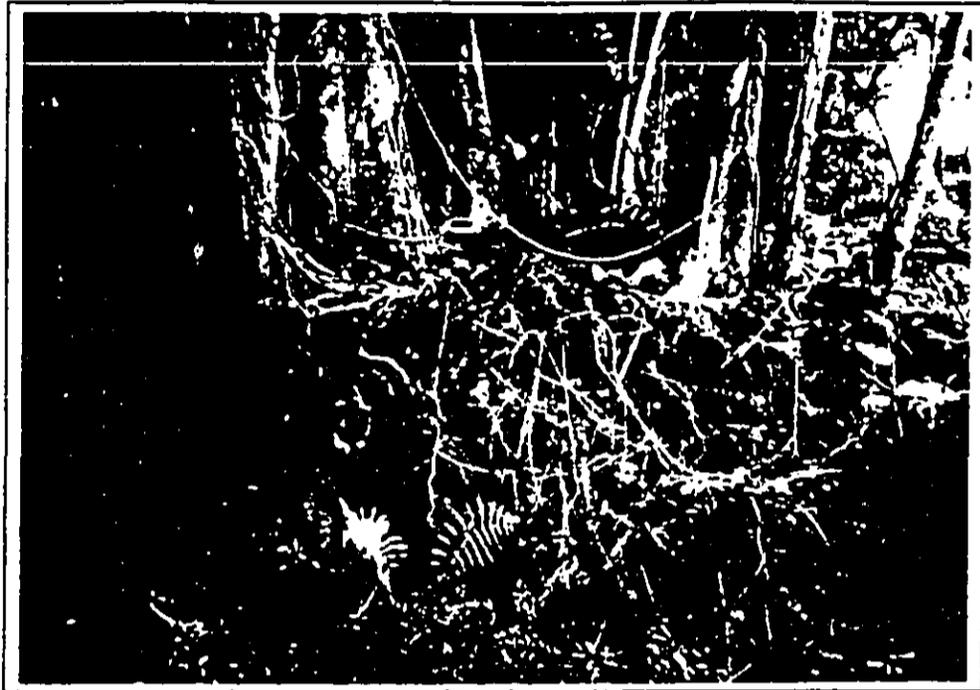


Figure 19: Photograph of Western End of Feature 6. View to Southeast.



Figure 20: Photograph of the North Wall of Feature 7, a Linear Mound. View to Southeast.

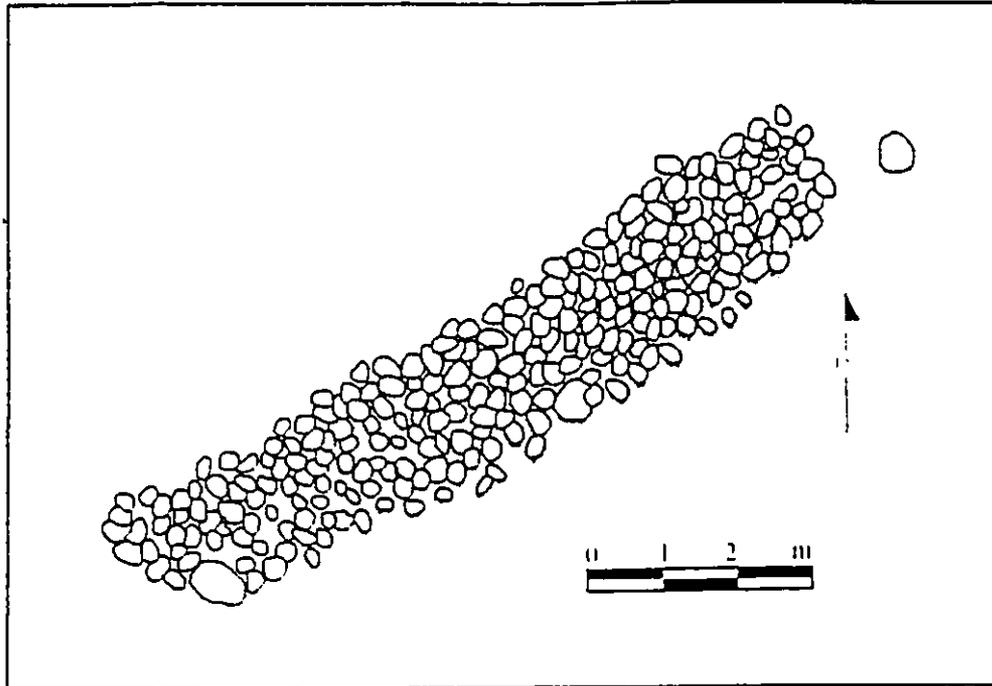


Figure 21: Planview of Feature 7, a Linear Mound.



Figure 22: Photograph of Feature 8, a Rock Wall/ Mound. View to Northwest

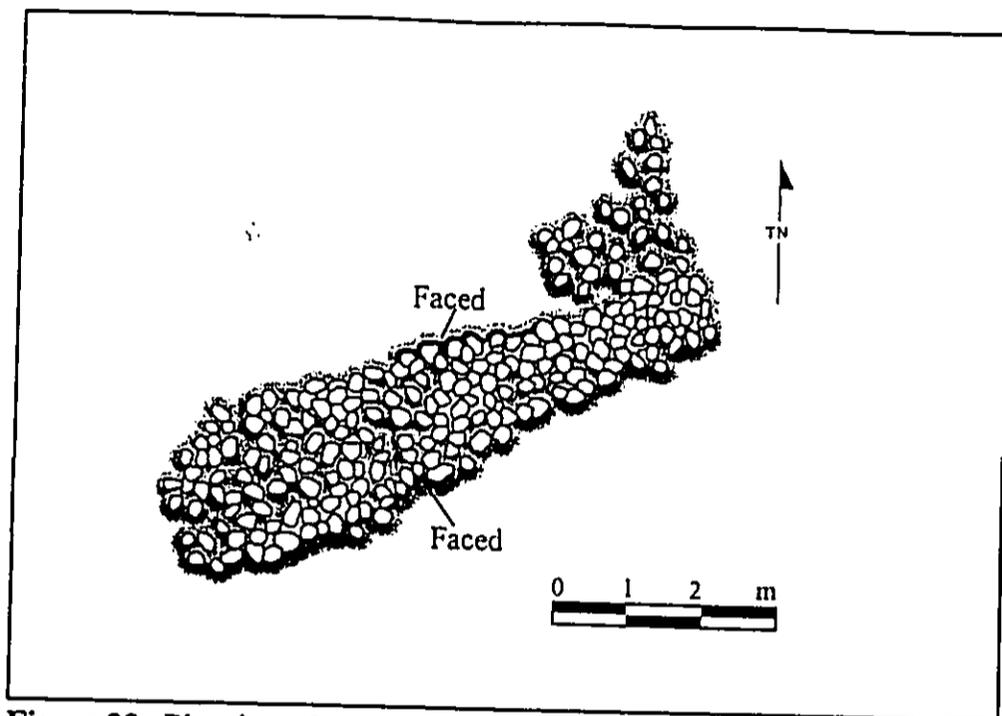


Figure 23: Planview of Feature 8, a Rock Wall/Mound.

FEATURE 9

Feature 9 was a nicely faced basalt rock platform located at the extreme north-east corner of the project area (Figure 24.). It stood around six courses high and measured 8.80 m by 3.90 m by 1.40 m high (Figure 25). *Schefflera* (*S. Actinophylla*) trees were sprouting from the top of the rock platform, which was flat. The north side had tumbled and contained cement blocks in the rubble. A few meters to the south-east was Feature 11. Feature 9 feature was interpreted as a clearing mound associated with plantation activities.

FEATURE 10

Feature 10 was a low rock mound located in the north-east section of the project area adjacent to Feature 11, which was located along its east side (Figure 26). It had been truncated on its eastern side and measured 3.10 m by 1.70 m by 0.82 m high (Figure 27). Large cut tree trunks were lying on the top of the mound along the edge that had been destroyed. Feature 10 was interpreted as a clearing mound associated with plantation activities.



Figure 24: Photograph of Feature 9, a Faced Rock Mound. View to Northwest.

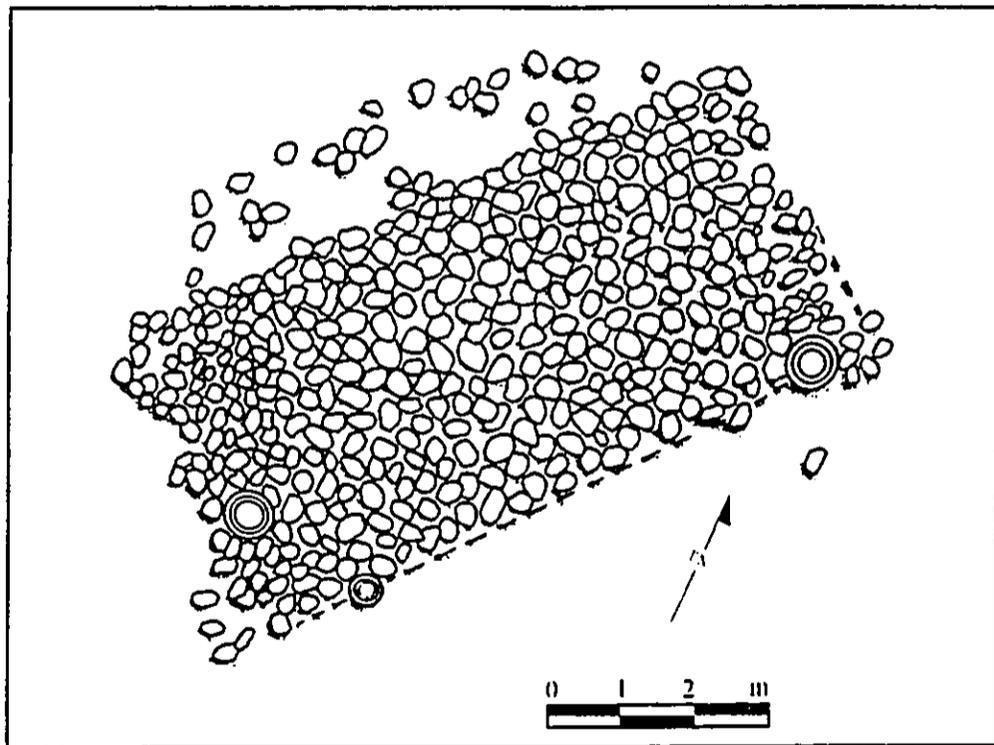


Figure 25: Planview of Feature 9, a Faced Rock Mound.



Figure 26: Photograph of Feature 10, a Rock Mound. View to Northeast.

FEATURE 11

Feature 11 was a long wall/linear berm beginning a few meters to the south-east of Feature 9 and ending approximately 1.50 m from the east end of Feature 6 (see Figure 27). It measured 18.50 m by 0.80 m by 0.58 m high (Figure 28) and had been heavily impacted by bulldozer push resulting from the grading of the extreme eastern end of the property. Only one section of the feature, measuring 2.5 m by 0.80 m by 0.58 m high, consisted of a low stacked wall. This was located at the northern end of the feature but, the majority of the construction consisted mainly of earth and rocks forming a long linear berm. Feature 10 was located on the western side of the wall. Feature 11 was interpreted as a boundary marker for individual homestead leased lots producing sugar cane (Hunt and McDermott 1994:30-31).

FEATURE 12

Feature 12 was a rock mound located approximately 19 meters to the south of Feature 8 (Figure 29). It was secured by a large banyan tree growing out of the top of the mound. Based on a reconnaissance by Dr. Spear in July of 1998, Feature 12 was the most northern end of Feature QQ, originally identified in 1994 (pers. comm Dr. Spear; Rosendahl 1994; see Figure 3). It measured 4.75 m by 4.3 m by 1.42 m high (Figure 30). The entire area circling the mound had

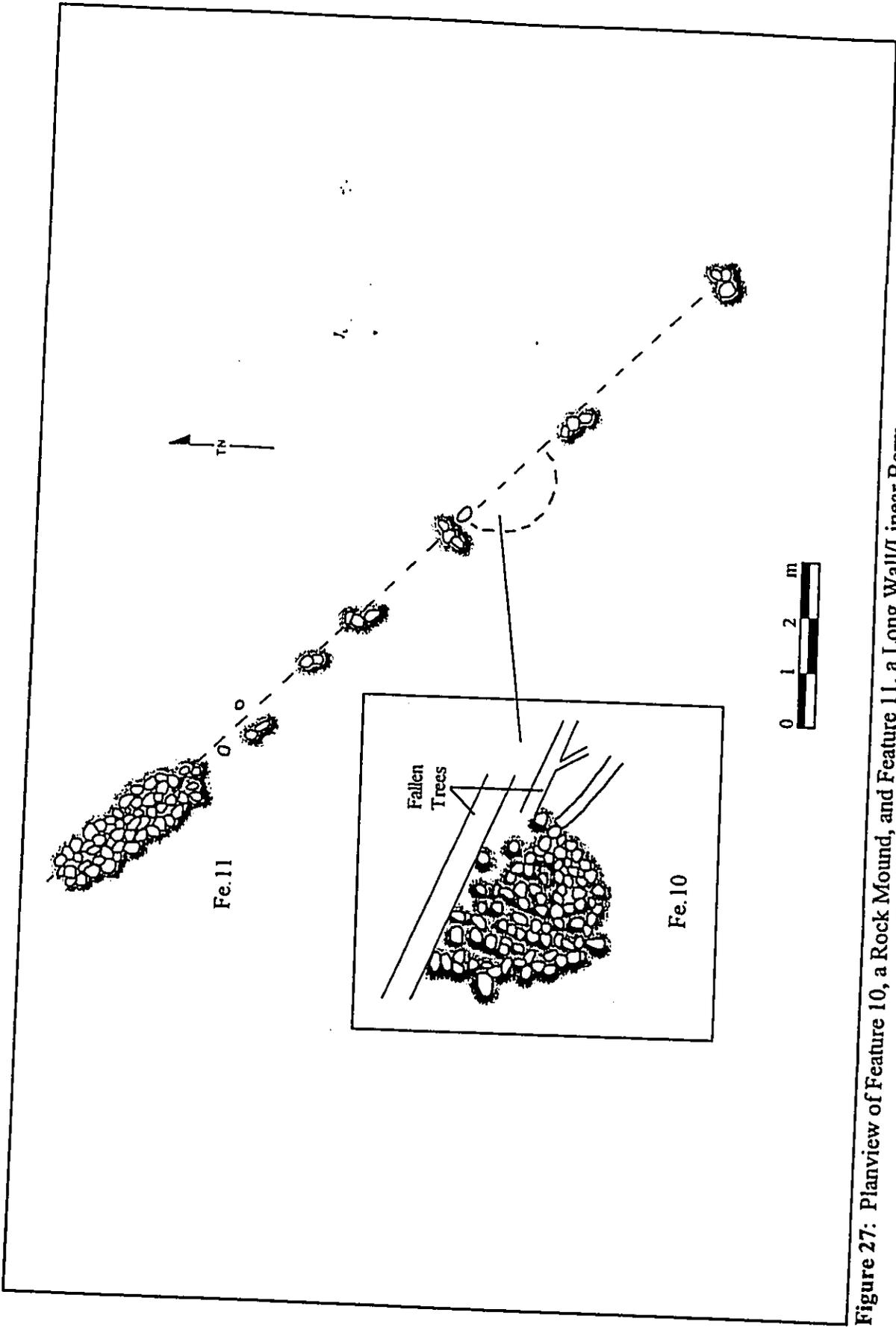


Figure 27: Planview of Feature 10, a Rock Mound, and Feature 11, a Long Wall/Linear Berm.

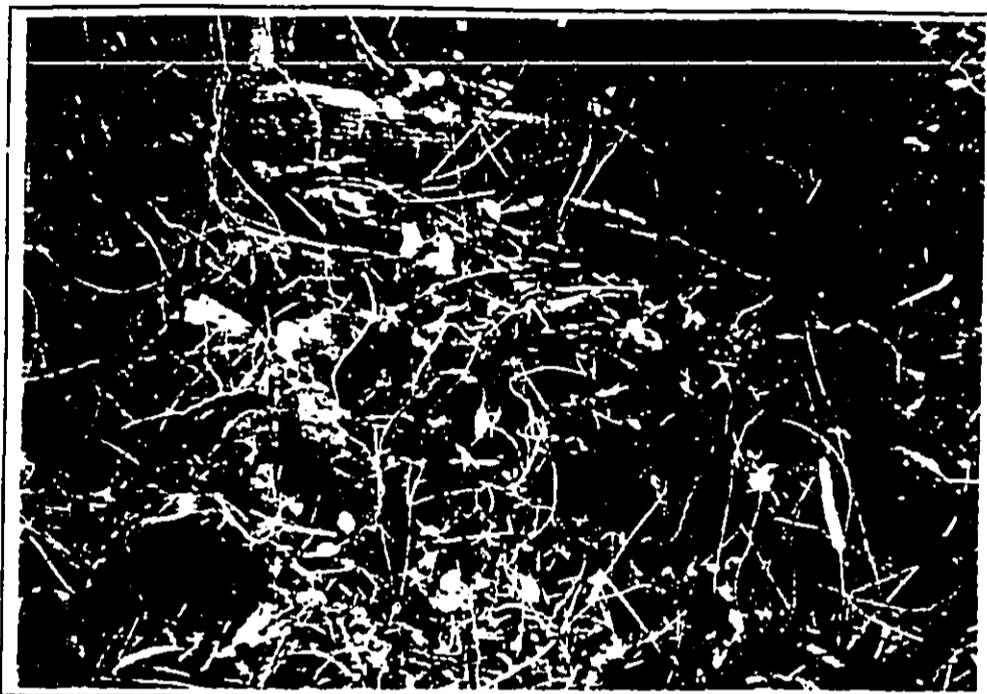


Figure 28: Photograph of Stacked Wall Segment of Feature 11. View to Southwest.

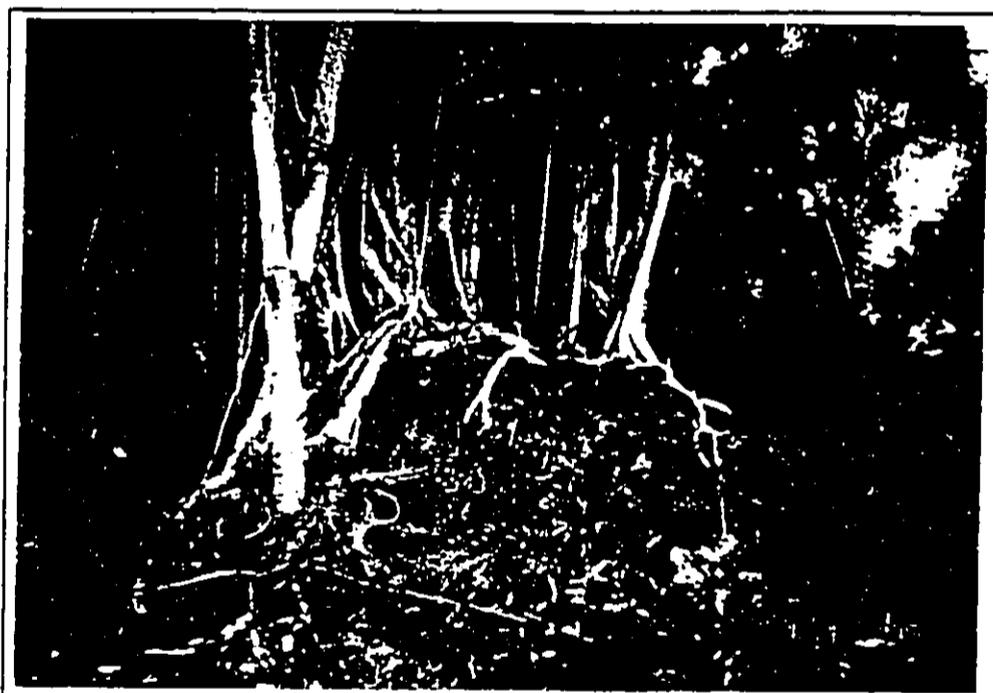


Figure 29: Photograph of Feature 12, a Rock Mound. View to North.

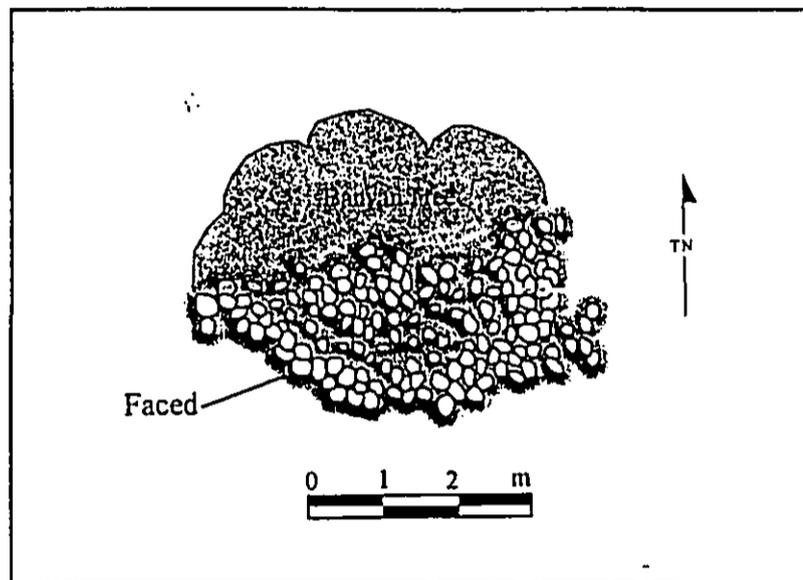


Figure 30: Planview of Feature 12, a Rock Mound.

been bulldozed and it was obvious that part of the feature had been severed from the mound. Feature 11 was interpreted as the remnant of a clearing mound associated with plantation activities.

FEATURE 13

Feature 13 was a rock mound located approximately seven meters to the east of Feature 12 (Figure 31). It had been partially destroyed due to bulldozer push from the east, but its original shape appeared to be rectangular in shape. Feature 13 measured 5.10 m by 3.10 m by 1.08 m high (Figure 32). It was interpreted as a clearing mound associated with plantation activities.

Thirteen features were identified during the inventory survey. Twelve of the features were interpreted as cane related. Feature 2 was identified as a relatively recently built boundary wall.

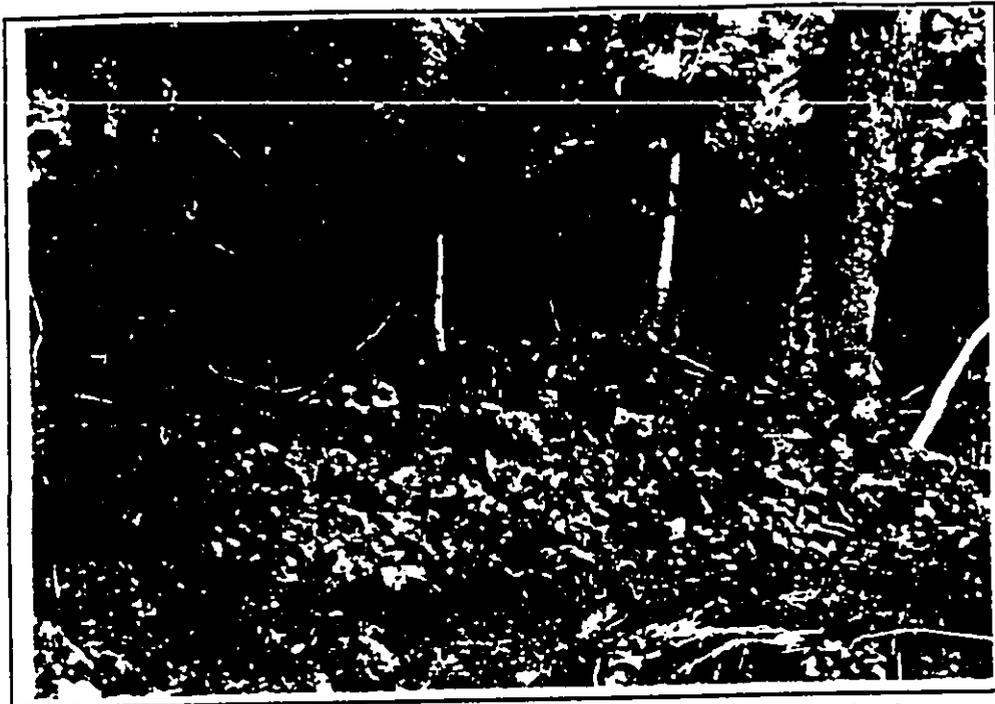


Figure 31: Photograph of Feature 13, a Rock Mound. View to North.

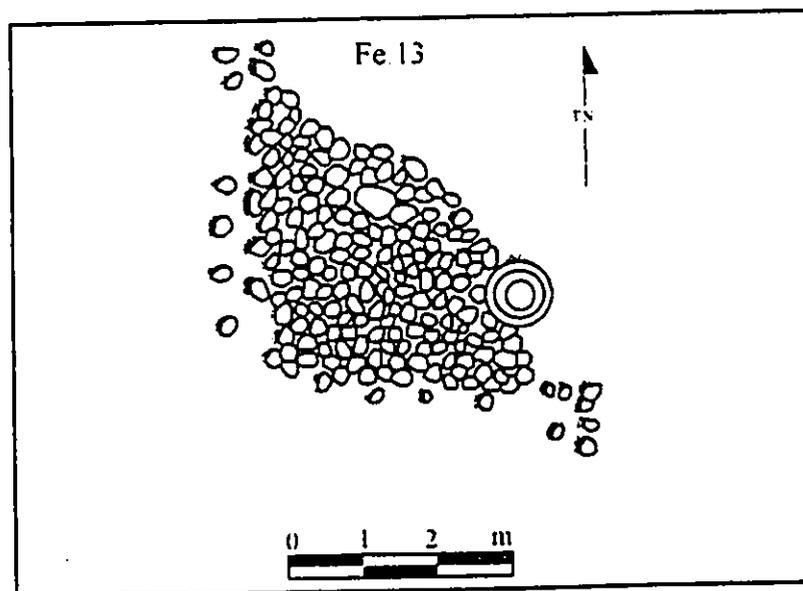


Figure 32: Planview of Feature 13, a Rock Mound.

DISCUSSION AND CONCLUSIONS

Thirteen archaeological features were recorded within the project area, all of which are associated with the previously recorded Site 19432. All of the recorded features from the project area included various shaped rock mounds, walls, and a faced terrace.

Recorded sites in the southern section of parcel 1 were previously identified as being associated with the post-Contact cultivation and transportation of sugar cane (Maly *et al.* 1994). In addition, features within the present project area were similar to those found in the Pu`āinako Street extension project area reported in Hunt and McDermott (1994) and McGerty and Spear (1999). Those features from Pu`āinako were associated with the production of sugar cane and included clearing mounds, foundations for water tanks, loading platforms, temporary flumes, and boundaries of cane and pasture land (Hunt and McDermott 1994:108; McGerty and Spear 1999).

There is no reason to disagree with the conclusion that the newly identified features of Site 19432 also date from the end of the 19th century to no later than 1940 (except for Feature 2), and more likely the 1920s as suggested by Maly *et al.* (1994:44) for the originally recorded area of Site 19432. The predicted settlement model of historic remains from sugar cane cultivation was confirmed.

Feature 2 was identified as a boundary wall built relatively recently by the owners of the property directly to the north-east.

RECOMMENDATIONS

Sufficient data has been obtained from all 13 features according to the discussions with the State Historic Preservation Division. No additional archaeological work is recommended for this project area.

Given the results of the inventory survey and previous data recovery work, it is considered highly unlikely that human burials are present within the project area. However, if burials are encountered during further development of the project area, all work in the immediate vicinity of the burial must stop and the State Historic Preservation Division (1-808-692-8029) must be notified.

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