DEPARTMENT OF
PARKS AND RECREATION
COUNTY OF MAUI

1580-C KAAHUMANU AVENUE WAILUKU, HAWAII 96793

JAMES "KIMO" APANA
Mayor

FLOYD S. MIYAZONO
Director

ELIZABETH D. MENOR
Deputy Director

(808) 270-7230
FAX (808) 270-7934

November 1, 2000

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 THE LAHAINA RECREATIONAL CENTER EXPANSION, LAHAINA, MAUI

The Maui County Department of Parks and Recreation has reviewed the comments received during the 30-day public comment period which began on August 23, 1999. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the November 23, 2000, OEQC Environmental Notice.

We have enclosed four copies of the Final EA and have transmitted a completed OEQC Publication Form to your office via e-mail. Please call Mr. Rory Frampton of Chris Hart & Partners at (808)242-1955 if you have any questions.

Sincerely,

Floyd S. Miyazono

FLOYD S. MIYAZONO
Director

c: John Min, Planning Department
Patrick Matsui, Chief of Parks Planning & Development
Rory Frampton, Chris Hart & Partners

2000-11-23-MA-FEA—

Final
Environmental Assessment

Lahaina Recreation Center Expansion

Lahaina, Maui, Hawaii
TMK: 4-6-15: Portion of 01

CHRIS HART &PARTNERS

October 2000

Final
Environmental Assessment

Lahaina Recreation Center Expansion

Lahaina, Maui, Hawaii
TMK: 4-6-15: Portion of 01

Prepared for:

Department of Parks and Recreation
County of Maui
1580C Kaahumanu Avenue
Wailuku, Maui, Hawai`i 96793
Phone: 243-7230 Fax: 243-7934

Prepared by:

Chris Hart & Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793
Phone: 242-1955 Fax: 242-1956

October 2000

TABLE OF CONTENTS

SECTION PAGE

Table of Contents i
FIGURES ii
APPENDICES iii

I. INTRODUCTION 1
A. OVERVIEW OF THE REQUEST 1
B. DESCRIPTION OF THE PROPERTY 2
1. Property Location 2
2. Existing Uses 2
3. Existing Land Use Designations 2
C. PROPOSED ACTION 2
D. ALTERNATIVES CONSIDER 3
E. PERMITS REQUIRED 3
F. CONSULTED AGENCIES 3

II. ENVIRONMENT SETTING, IMPACTS AND MITIGATION MEASURES 5
A. PHYSICAL ENVIRONMENT 5
1. Surrounding Land Uses 5
2. Climate 6
3. Topography and Soils 6
4. Flood and Tsunami Hazard 7
5. Flora and Fauna 7
6. Air Quality 7
7. Noise Characteristics 8
8. Visual Resources 8
9. Archaeological/Historical Resources 9
B. SOCIO-ECONOMIC ENVIRONMENT 10
1. Population 10

2. Economy 10
C. PUBLIC SERVICES 11
1. Recreation Facilities 11
2. Police and Fire Protection 11
3. Solid Waste 11
4. Health Care 12
5. Schools 12
D. INFRASTRUCTURE 12
1. Roadways 12
2. Wastewater 13
3. Water 13
4. Drainage 14
5. Electrical and Telephone Systems 15

III. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES, AND CONTROLS ..16
A. HAWAI`I LAND USE LAW 16
B. GENERAL PLAN OF THE COUNTY OF MAUI 16
C. WEST MAUI COMMUNITY PLAN 16
D. MAUI COUNTY ZONING 17
E. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA 17

IV. FINDINGS AND CONCLUSIONS 22

V. REFERENCES 23

FIGURES

Figure No. 1 - Regional Map
Figure No. 2 - Project Location Map
Figure No. 3 - Site Plan
Figure No. 4 - West Maui Community Plan Land Use Designation Map
Figure No. 5 - Flood Insurance Rate Map
Figure No. 6 - Agricultural Lands of Importance to the State of Hawai`i

APPENDICES

Appendix A - Preliminary Drainage and Erosion Control Report for Waine`e Park

Appendix B - Traffic Impact Analysis by Phillip Rowell and Associates

Appendix C- Draft Environmental Assessment Comment Letter and Response

I. INTRODUCTION

A. OVERVIEW OF THE REQUEST

This document has been prepared in support of the proposed Lahaina Recreation Center Expansion. Pursuant to Chapter 343, Hawai`i Revised Statutes (HRS), requests for the use of state or county lands or funds requires the preparation of an Environmental Assessment. This document has been prepared to meet the requirements of Chapter 343, HRS and Environmental Impact Statement Rules, Chapter 200, Department of Health, Hawai`i Administrative Rules.

Property Owner:
Pioneer Mill Co. Ltd. (AMFAC/JMB)
P. O. Box 727
Lahaina, Maui, Hawai`i 96767

Proposing Agency:
Department of Parks and Recreation
County of Maui
1580 C Kaahumanu Avenue
Wailuku, Maui, Hawai`i 96793

Planning Consultant/Agent:
Chris Hart & Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawai`i 96793

B. DESCRIPTION OF THE PROPERTY

1. Property Location

The project site is located on the mauka side of the present Lahaina Recreation Center, a public park, and the Pioneer Mill's Cane Haul Road (Mill Street), on the south side of Shaw Street in the town of Lahaina, Island of Maui, known as TMK 4-6-15: Portion of 01 (Figures No. 1 and 2).

2. Existing Uses

The project site is 13.712 acres in size, and has been recently used for sugarcane production. The field has not been used for seed cropping for the past three years, and currently there is cane stubble in the field. A portion of the site is situated within the old Waine`e Village.

3. Existing Land Use Designations

State Land Use Commission:	*Agricultural*
West Maui Community Plan:	*Single Family, Park* and *Agricultural* (Figure No. 4)
County Zoning:	*Agricultural*
Other Designations:	None

C. PROPOSED ACTION

The proposed Lahaina Recreation Center Expansion will consist of the construction of one Little League/softball field and one Senior Little League/Pony Field, and one restroom facility. The preliminary site preparation work, including grading, grass and landscape planting, irrigation system, a 50-stall parking lot, sidewalks and restrooms, will be provided by Amfac, as part of its North Beach development SMA requirements. The County of Maui Parks Department will develop additional improvements, in phases, including perimeter fencing, overhead lighting, electronic scoreboards, an

irrigation well and pump system, and additional parking (see Figure No. 3). The improvements to be included in Phase I of the Department of Parks and Recreation plan will total $400,000, the County budget appropriation for the current year. The total County budget estimate allocated for the Lahaina Recreation Center expansion is approximately $1,000,000. The timeframe for construction of the project is contingent upon Amfac's completion of the basic improvements to the property.

D. ALTERNATIVES CONSIDER

Land for the project was provided for and selected by Amfac, and as such there is no alternative location for the project. The provision of alternative facilities, such as football fields, were considered, however, based on available facilities nearby and the needs of the community, it was determined that the provision of two baseball fields was the optimal use of the site.

E. PERMITS REQUIRED

NPDES (grading)
Grading Permit
Well Drilling
Pump Installation
Building Permit

F. CONSULTED AGENCIES

County
- Department of Public Works and Waste Management
- Department of Water Supply
- Department of Planning

State
- State Historic Preservation Division
- Commission on Water Resource Management

II. ENVIRONMENT SETTING, IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

Existing Conditions: The project site is located on the west side of Maui, adjacent to the Lahaina Recreation Center on the outskirts of historic Lahaina Town. Lahaina Town contains regional commercial services, major civic facilities and spaces, residential neighborhoods and is bounded to the east by sugarcane cultivation.

Specific uses surrounding the subject site include the following (Figures No. 2 and 4):

•North: Abutting the subject site's northern boundary are the Pioneer Mill sugarcane fields. State Land Commission: *Agricultural* District, County Zoning: *Agricultural* District, and West Maui Community Plan: *Park* and *Agricultural.*

•South: Abutting the subject site's southern boundary are the Pioneer Mill sugarcane fields and Komohana Hale Subdivision. State Land Commission: *Agricultural* and *Urban* District, County Zoning: *Agricultural* and *A-1 Apartment* Districts, and West Maui Community Plan: *Park, Agricultural* and *Multi- Family.*

•East: Abutting the subject site's eastern boundary are the Pioneer Mill sugarcane fields. State Land Commission: *Agricultural* District, County Zoning: *Agricultural* District, and West Maui Community Plan: *Park, Agricultural* and *Single Family.*

•West: Across Mill Street (a cane haul road), on the subject site's western boundary are the County of Maui's Lahaina Recreation Center and the Lahaina Aquatic Center. State Land Commission: *Agricultural* District, County Zoning: *Agricultural* District, and West Maui Community Plan: *Park* and *Single Family.*

Potential Impacts and Mitigating Measures: The project is an extension of the existing Lahaina Recreation Center. The proposed park use is compatible with the surrounding agricultural or park uses, and it is not anticipated to result in any significant impact to the surrounding properties.

2. Climate

Existing Conditions: The climate in the Lahaina region is influenced by the persistent north-northeasterly trade winds. Lahaina Town is located in the dry leeward portion of West Maui. Average annual temperature in Lahaina is 75°F. Average monthly temperatures vary by about 9 degrees between the coolest and warmest months. Rainfall at the project site averages approximately 15 inches per year.

3. Topography and Soils

Existing Conditions: The project site slopes gradually to the west, from an elevation of about 50 feet above mean sea level to an elevation of 20 feet at the proposed park entrance. The average ground slope is about 2.5 percent. There is a major Pioneer Mill irrigation ditch above the eastern boundary of the property. The site's topography has been altered through sugarcane cultivation over the past century. There are no significant topographic constraints within the project site.

There are two soil types specific to the project site. The first type is Ewa silty clay loam, 0 to 3 percent slopes (EaA). EaA soils consist of well-drained soils in basins and on alluvial fans. These soils developed in alluvium derived from basic igneous rock. Runoff is very slow and the erosion hazard is no more than slight. The second type is Waine`e very stony silty clay, 3 to 7 percent slopes (WxB). Runoff is slow and the erosion hazard is slight.

Also, as documented in the Agricultural Lands of Importance to the State of Hawai`i maps, the project site has three designations: Prime Agricultural Lands, Other Important Agricultural Lands and Existing Urban Development which is the old demolished Waine`e Village (Figure No. 6).

Potential Impacts and Mitigating Measures: Only a very small portion of the project site is classified as Prime Agricultural Land, while the majority of the remainder is classified as Other Important Lands. A portion of the parcel was included in the part of Waine`e Village that was demolished in 1981. The project site is surrounded by

sugarcane fields that have been in use for the past century, athough in the past ten years Pioneer Mill has withdrawn from agricultural operations in lands adjacent to urban areas. The project site is currently covered with cane stubble, and has not been used for seed cropping for the past three years. Given the existing amount of farmable land in West Maui and the proximity of this site to existing urban development, the proposed action is not anticipated to result in significant impacts to agricultural operations in West Maui.

4. Flood and Tsunami Hazard

Existing Conditions: The project site is designated Zone "C" by the Flood Insurance Rate Map No. 150003 163 C for the South Lahaina region. Zone "C" defines areas of minimal flooding (Figure No. 5).

Potential Impacts and Mitigating Measures: The proposed project should not be affected by nor have adverse impacts upon its neighbors or downstream properties with regard to flood hazard potential. (See Section V.D.4. Drainage for a discussion of stormwater runoff.)

5. Flora and Fauna

Existing Conditions: The project site is substantially disturbed. For the past century, the parcel has been in sugarcane production. A portion of the parcel was included in the part of Waine`e Village which was demolished in 1981. There are no rare, endangered or threatened species of plant at the site.

Animal life in the project vicinity similarly reflects the agricultural/urban character of the region. Avifauna typically found in the Lahaina region includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose.

Potential Impacts and Mitigating Measures: The project is not anticipated to result in any significant impact to the flora, fauna or animal life of the area.

6. Air Quality

Existing Conditions: Air quality in the Lahaina region is considered relatively good. Point sources (e.g., Pioneer Sugar Mill) and non-point sources (e.g., automobiles) of

emissions are not significant to generate a high concentration of pollutants. The relatively high quality of air can also be attributed to the region's constant exposure to wind, which quickly disperses concentrations of emissions. This rapid dispersion is evident during the burning of sugarcane in the fields of West Maui. Maui is currently in attainment for all criteria pollutants established by the Clean Air Act, as well as the State of Hawai`i Air Quality Standards. This means that the ambient air in Maui is in compliance with the State and Federal air quality standards (DOH pers. com.).

Potential Impacts and Mitigating Measures: Air quality impacts attributed to the proposed project could include dust generated by the short-term, construction-related activities. Site work such as grading and building construction, for example, could generate airborne particulates. Dust control measures such as limiting the area of clearing and grubbing and minimizing the construction period, as well as regular watering, sprinkling and the installation diversion ditches, silt screens and dust screens will be implemented to minimize the potential impact from wind-blown emissions.

In the long term, the increase in the number of users will result in a slight increase in the volume of traffic in the project's vicinity, which in turn could affect the air quality. However, this increase is not considered significant when compared to the overall amount of vehicles in this area. As such, the proposed project is not anticipated to be detrimental to the local air quality.

7. Noise Characteristics

Existing Conditions: Traffic noise from the cane haul road and Honoapiilani Highway are the predominant source of background noise in the vicinity of the project site. The closest residential area to the project site is the Komohana subdivision, located to the southwest of the project. The adjoining parking lot and playing fields of the present recreation center across the street are also sources of noise in this locale.

Potential Impacts and Mitigating Measures: The project site is an extension of the neighboring recreation center's use. Noise from recreation activities is not anticipated to result in any significant impact to the surrounding properties.

8. Visual Resources

Existing Conditions: The project site is located on the outskirts of the Historic Lahaina Town area. The site is not a part of the unique scenic corridor, and does not intrude in

the public view to or from the ocean. The site does not provide a valuable vantage point to scenic resources.

Potential Impacts and Mitigating Measures: Due to the location of the project, it is not anticipated to result in any significant impact to the visual resources of the area.

9. Archaeological/Historical Resources

Existing Conditions: Lahaina Town is registered in the National and State Registers of Historic Places. Portions along the mauka side of Honoapiilani Highway corridor are designated in State Site No. 50-50-03-3001, Lahaina Historic District. The project site lies just outside the boundary of the Historic District. Boyd Dixon of the Historic Preservation Division, DLNR, commented in a discussion that since the site had been cultivated in sugarcane for the past century, there was little or no chance of archaeological sites surviving in this area (DLNR pers. comm.).

Lahaina was a highly significant place in the Hawaiian Kingdom, serving as its capital during the first half of the nineteenth century. The subject parcel includes numerous 19th century Land Commission Awards, which may pertain to either agricultural holdings and/or habitation areas.

Potential Impacts and Mitigating Measures: In the unlikely event that sub-surface historic/cultural remains are encountered during construction, work will be stopped and the State Historic Preservation Office will be contacted to access the significance of the find and recommend appropriate mitigation measures, if necessary.

As noted earlier, the project site is located just outside the boundary of the Lahaina Historic District. Since the site has been previously cleared and graded for use as single family residences and agricultural uses, it is unlikely that any significant historic or cultural remains exist.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

Existing Conditions: The population of the County of Maui has exhibited relatively strong growth over the past decade with a 1997 population of 118,864, a 18.4% increase over 1990 population of 100,374 (US Bureau of the Census, 3/17/98). The 1990 population of Maui Island was 91,361 (Community Resources, Inc., March 1994). The 1990 population of Lahaina District was 14,574, a 41.7% increase over Lahaina District's 1980 population of 10,284. West Maui's de facto population for 1990 was 34,974 (Community Resources, Inc., March 1994).

Potential Impacts and Mitigating Measures: The project is not anticipated to result in any significant impact to the West Maui population.

2. Economy

Existing Conditions: The Lahaina economy is based primarily upon the visitor industry. Visitor accommodations are located near the shoreline along with necessary support facilities and residential communities. Kapalua and Kaanapali have developed into important visitor destination anchors while the old Lahaina Town, with its historic character and charm, has developed into the region's visitor, service, commercial and residential center. Agriculture is also an important part of Lahaina's economy. Sugarcane and pineapple fields are found in the Lahaina district, and the historic Pioneer Mill on Lahainaluna Road continues to process cane. However, Pioneer Mill recently announced that it will cease sugarcane operations in the near future. AMFAC and JMB are currently restructuring their Agricultural Division.

Potential Impacts and Mitigating Measures: On a short-term basis, the project will support construction and construction-related employment.

On a long-term basis, the project will provide an increase in recreation facilities for the residents of and visitors to West Maui. The proposed project will have little or no impact upon employment opportunities, and will not have any significant impact upon local population levels.

C. PUBLIC SERVICES

1. Recreation Facilities

Lahaina has a wide reputation as a recreation destination, particularly for ocean related activities. Ocean sports and recreation available in the Lahaina District include swimming, fishing, surfing, scuba diving, snorkeling, sailing, and para-sailing. There are many State and County beach parks provided for tourists and residents in the Lahaina District. The number of parks in Lahaina providing active recreation (i.e., team sports) facilities for Maui's residents is, however, limited. The project site is being provided to the County of Maui by Amfac Properties, Inc., as part of its North Beach park dedication requirement.

The subject site is an expansion of the Lahaina Recreation Center park, which is a central non-ocean County park on the west side of Maui and includes the Lahaina Aquatic Center on the north side of Shaw Street. The provision of two additional baseball diamonds will alleviate some of the overcrowding of the existing facilities. The expansion will have a positive benefit for the people of West Maui in the provision of additional sport facilities.

2. Police and Fire Protection

The Lahaina District Station of the Maui County Police Department has provided police protection for Lahaina District since 1974. The station is located behind the Lahaina Civic Center in Wahikuli.

Fire protection in the Lahaina District is provided by the Maui County Fire Department's Lahaina Station. The Lahaina Fire Station, built in 1972, is staffed by 30 firefighters. There are three shifts with ten men on each shift. The station has two fire trucks.

3. Solid Waste

Only two landfills are currently operating on Maui, the Central Maui Landfill in Puunene, and the Hana landfill. Single-family residential solid waste collection is provided by the County and taken to the Central Maui Landfill, which also accepts waste from private refuse collection companies. A convenience station is located in

Olowalu to service West Maui residents. Solid wastes are transported from this convenience station to the Central Maui Landfill. Solid waste collection for Lahaina Recreation Center is provided by private companies or by the Department of Parks and Recreation.

4. Health Care

Maui Memorial Medical Center in Wailuku, the only major medical facility on the island, serves the Lahaina region. Acute, general and emergency care services are provided by the 194-bed facility. In addition, numerous privately operated medical/dental clinics and offices are located in the area to serve the region's residents.

5. Schools

The Lahaina District is serviced by both private and public schools, which provide education for preschool through high school age children. Public schools in the Lahaina District include the King Kamehameha III Elementary School for children from kindergarten through fifth grade, Princess Nahienaena Elementary School for preschool through fifth grade, the Lahaina Intermediate School for grades six through eight, and Lahainaluna High School for grades nine through twelve. Private schools in the Lahaina District include Sacred Hearts School for grades kindergarten through eight and several preschools.

Potential Impacts and Mitigating Measures: The project is not anticipated to result in any significant impact to police and fire protection, solid waste collection, health care, or schools.

D. INFRASTRUCTURE

1. Roadways

Existing Conditions: The automobile is the primary source of transportation in Lahaina. An extensive roadway system exists in the Lahaina area. Right-of-way widths vary with each roadway. Some roads are paved with curbing and sidewalks while others are comprised of asphaltic concrete pavement with limited curbs.

The project site is located on the mauka side of Mill Street. Access is from the existing cane haul road leading to Waine`e Village. The park's entrance is located approximately 60 feet mauka of the Shaw and Mill Street intersection. The Shaw Street/Honoapiilani Highway intersection is signalized. The average right-of-way width along Shaw Street fronting the property will be approximately 25 feet, with a pavement width of approximately 21 feet.

There will be 50 on-site parking spaces provided by Amfac within the project site. An additional 30 future parking spaces to be developed by the Maui County Department of Parks and Recreation will be located on the makai side of the parking area along the east side of the property (see Figure No. 3).

Potential Impacts and Mitigating Measures: A traffic impact analysis was conducted by Phillip Rowell and Associates and is included in this document as Appendix B. The report concluded that the increase in traffic due to this expansion of an existing recreation facility is expected to have minimal impact on traffic patterns in the area.

2. Wastewater

Existing Conditions: The project site is not connected to the County sewage system.

Potential Impacts and Mitigating Measures: The proposed restrooms will be served by an individual wastewater treatment system (IWS) consisting of a septic tank and leach field which has been approved by the Department of Health in regards to conformance with the State's rules and regulations for wastewater systems. The project will not connect to the County's collection system due to the distance from the proposed facility to the nearest point of connection.

3. Water

Existing Conditions: Lahaina Town's water sources are the Kahana Stream and a water well near Lahainaluna School. The present Lahaina Recreation Center is serviced by a waterline located along Shaw Street. Fire protection for the project site is provided by existing fire hydrants fronting the project site along Shaw Street.

Potential Impacts and Mitigating Measures: The subject site will be served by a ground-water well for irrigation purposes. Well development will conform to the requirements of the Commission on Water Resource Management (CWRM). These

requirements establish standards for well construction as well as pump installation. Well construction will incorporate standards of the CWRM in order to prevent contamination of the underlying aquifer. After the well is constructed, tests will be performed in order to determine the appropriate utilization rates. An assessment of the relationship and potential impacts of the well on the underlying aquifer will be conducted as part of the pump installation permitting requirements.

Impacts to the County's municipal system will be minimal due to the utilization of a separate well for irrigation and since potable water needs will be mainly for restroom facilities. Potable water will be supplied via the Mill Street waterline.

4. Drainage

Existing Conditions: Present and future runoff and soil erosion conditions are documented in the Preliminary Drainage and Erosion Control Report for Waine`e Park by Ronald M. Fukumoto Engineering (see Appendix). The present on-site runoff generated by the park parcel is 8.5 cubic feet per second (cfs). The project site has an existing irrigation ditch running mauka of the property. This ditch intercepts runoff from upstream areas and allows the flows to bypass the park site.

Runoff from the project site flows toward Mill Street. The runoff flows along Mill Street in a northwesterly direction along the street before entering an existing drainage depression located adjacent to the Lahaina Aquatic Center site. During periods of heavy rainfall, the sump allows the runoff to pond before flowing across the highway.

Potential Impacts and Mitigating Measures: There are no on-site drainage improvements included in the park. A two-foot high earth berm will be constructed along the mauka perimeter of the park to divert runoff from entering into the ballfields.

Alterations to the natural on-site drainage pattern will be kept to a minimum. Runoff will sheet flow over the ballfields and park into grassed swales. The park development will reduce the slope of the land to accommodate the ballfields. This reduced slope will slow runoff, allowing more infiltration into the soil. The benefit of increased infiltration, however, is offset by the paved parking lot and walkways. The on-site runoff generated by the park development is calculated to be 8.5 cfs (identical to the 8.5 cfs in the existing conditions). As such, there will be no runoff increase due to the proposed development.

Based on the foregoing, the project is not anticipated to result in any significant impact on downstream properties.

5. Electrical and Telephone Systems

Existing Conditions: Electrical service to the project site is presently provided by Maui Electric Company, Ltd. (MECO) powerlines. Any additional electrical power needs for the project site will be supplied by MECO.

GTE Hawaiian Telephone Company maintains overhead telephone lines that serve the project site.

Potential Impacts and Mitigating Measures: The increase in usage of electrical and telephone systems will be minor.

III. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES, AND CONTROLS

A. HAWAI`I LAND USE LAW

Chapter 205, Hawai`i Revised Statutes, relating to the Land Use Commission, establishes the four major land use districts in which all lands in the State are placed. These districts are designated *Urban, Rural, Agricultural,* and *Conservation*. The project site is within the *Agricultural* District. The proposed improvements are permitted within the *Agricultural* District as open air recreation facilities.

B. GENERAL PLAN OF THE COUNTY OF MAUI

The General Plan of the County of Maui (1991 update) provides long term goals, objectives, and policies directed toward the betterment of living conditions in the County. Addressed are social, environmental, and economic issues that influence future growth in Maui County. The proposed recreation use is consistent with the following General Plan objective and policies:

Objective: To provide high-quality recreation facilities to meet the present and future needs of our residents of all ages and physical abilities.

Policies:

- Maintain and upgrade existing recreation facilities to meet community needs.

Develop multi-purpose recreation facilities (Page No. 13).

C. WEST MAUI COMMUNITY PLAN

Nine community plan regions have been established in Maui County. Each region's growth and development is guided by a Community Plan, which contains objectives

and policies in accordance with the County General Plan. The purpose of the Community Plan is to outline a relatively detailed agenda for carrying out these objectives.

The project site is located within the West Maui Community Plan. The West Maui Community Plan was updated and adopted by ordinance No. 2476 on February 27, 1996. The project site is designated as *Park, Single Family* and *Agricultural* on the County Plan's Land Use Map. The recreation use of the project site is consistent with the following West Maui Community Plan goal, objectives, and policies:

Goal: An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the future needs of the residents and visitors in a manner that provides for the stable social and economic well-being of residents and preservation and enhancement of the region's open spaces and natural environmental resources (Page No. 15).

Objectives and Policy:

•Establish, expand and maintain parks and private open spaces, public facilities, cemeteries, and public shoreline areas within Lahaina town. Major park spaces to be maintained, expanded, or established are...the continued development and expansion of the park at Waine`e into a regional recreation and sports facility (Page No. 20).

D. MAUI COUNTY ZONING

The project site is zoned "Agricultural" District. The proposed recreation use is a permitted use under Section 19.30A.050.B.12, "Parks for public use."

E. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA

The expected consequences of the project and its short-term and long-term effects are discussed in this report, in order to support a finding of no significant impact. To determine whether the project may have a significant impact on the environment, the environmental assessment significance criteria, established by the Department of Health Rules (11-200-12), are used as a basis. The action shall be determined to have significant impacts on the environment if it meets any one of the following criteria:

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

Portions along the mauka side of Honoapiilani Highway corridor are designated in State Site No. 50-50-03-3001, Lahaina Historic District. The proposed project is situated on the mauka side of Mill Street, the boundary of State Site 50-50-05-3001, lying just outside the boundary of the Historic District. Boyd Dixon of the Historic Preservation Division, DLNR, commented in a discussion that since the site had been cultivated in sugarcane for the past century, there was little or no chance of archaeological sites surviving on the property. The proposed park is an extension of the existing Lahaina Recreation Center. The park use is compatible with the surrounding agricultural and park uses. The location of the project is not anticipated to result in any significant impact to scenic views, air quality or noise in the area.

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

Portions of the subject property have been previously utilized for urban and agricultural activities. Over the past ten years, Pioneer Mill has withdrawn from agricultural operations in lands adjacent to the urban areas. The proposed alteration in use will increase beneficial uses of the immediate environment.

3. *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The proposed project concurs with the County of Maui's General Plan and West Maui Community Plan environmental policies, goals and guidelines, which are consistent with the State's environmental policies, goals and guidelines.

4. *Substantially affects the economic or social welfare of the community or state;*

The proposed project will not negatively impact the local economy and employment opportunities, but rather it will have a positive impact by expanding the recreation facilities in West Maui. The project will not negatively impact health care, schools or population counts. The impact on the social welfare of the community will be positive.

5. *Substantially affects public health;*

The proposed project will not negatively impact the health care system of Maui. Short-term construction-related impacts may affect air, noise, traffic and water quality, and mitigation measures will be employed to minimize these impacts. The long-term effects of this project are anticipated to have positive economic, social, and quality of life impacts.

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

The proposed project will not generate employment or population growth. There will be a positive impact on the recreation facilities and will be no negative impact on schools, thereby not causing any negative secondary impacts.

7. *Involves a substantial degradation of environmental quality;*

The proposed project involves converting agricultural lands into a recreation facility with two baseball diamonds, on-site parking and associated landscaped areas. With the incorporation of mitigation measures relative to soil erosion and fugitive dust during construction, the project will have no significant impact on the environmental quality of West Maui.

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

The expansion of the Lahaina Recreation Center will not have a substantial effect on the environment. Amfac has agreed to provide a graded site, with grass, a parking lot, sidewalks and restrooms. The County of Maui will develop additional improvements, including fencing, ballfields, lighting, electronic scoreboards, and an irrigation well and pump systems, totalling approximately $1,000,000. These improvements will be constructed in phases as the funds are appropriated for this project. There are no further commitments beyond these anticipated improvements.

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

The project site has been substantially disturbed. For the past century, the parcel has been in sugarcane production and a portion of the parcel was included in the part of the Waine`e Village that was demolished twelve years ago.

There are no rare, endangered or threatened species of plants at the site. Animal life in the project vicinity similarly reflects the agricultural/urban character of the region. Avifauna typically found Lahaina region includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose.

There are no known significant habitats of rare, endangered or threatened species of flora and fauna at the site.

10. *Detrimentally affects air or water quality or ambient noise levels;*

Short-term construction-related impacts to air or water quality or noise levels will be mitigated through adherence to identified mitigation measures. Over the long term, there will be no significant impacts to air or water quality or to ambient noise levels.

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 designated Zone "C" by the Flood Insurance Rate Map No. 150003 163 C for the South Lahaina region. Zone "C" defines areas of minimal flooding. The proposed project should not be affected by nor have adverse impacts upon its neighbors or downstream properties with regard to flood hazard potential.

12. *Substantially affects scenic vistas and viewplanes identified in county or state plans or studies;*

The site is not a part of a scenic or unique scenic corridor nor does it provide a valuable vantage point to scenic resources. The proposed project will not have negative impacts upon the visual character of the site and its immediate environs.

13. *Requires substantial energy consumption.*

The proposed project will not require substantial energy consumption. Improvements consist of two playing fields with overhead lighting, restrooms, perimeter fencing, an irrigation system, and a parking area.

IV. FINDINGS AND CONCLUSIONS

The proposed recreation expansion and use will not have significant impact upon surrounding areas, significant archaeological or historic sites, employment opportunities, nor local population. Public service needs such as police, medical facilities and schools will not be significantly impacted by the proposed recreation use. Impact upon roadways, water, wastewater, drainage, and other infrastructure systems are not considered significant.

Considering the foregoing, it is concluded that the proposed action will not result in any significant impacts and a Finding of No Significant Impact is warranted.

V. REFERENCES

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

County of Maui, Maui Planning Department, *The General Plan of the County of Maui, 1990 Update.*

County of Maui, Maui Planning Department, *West Maui Community Plan*, 1996.

Federal Emergency Management Agency, National Flood Insurance Program, *Flood Insurance Rate Map*, Maui County, Hawaii, Community Panel Number 150003-0163B, June 1, 1981.

Ronald M. Fukumoto Engineering, *Preliminary Drainage and Erosion Control Report for Waine`e Park*, March 1999.

State of Hawai`i, Department of Business and Economic Development, *Data Book*, 1990.

US Bureau of the Census, *Estimate of the Population of Counties and Demographic Components of Population Change: Annual Time Series, July 1, 1990 to July 1, 1997*, Bulletin CO-97-3, 17 March 1998.

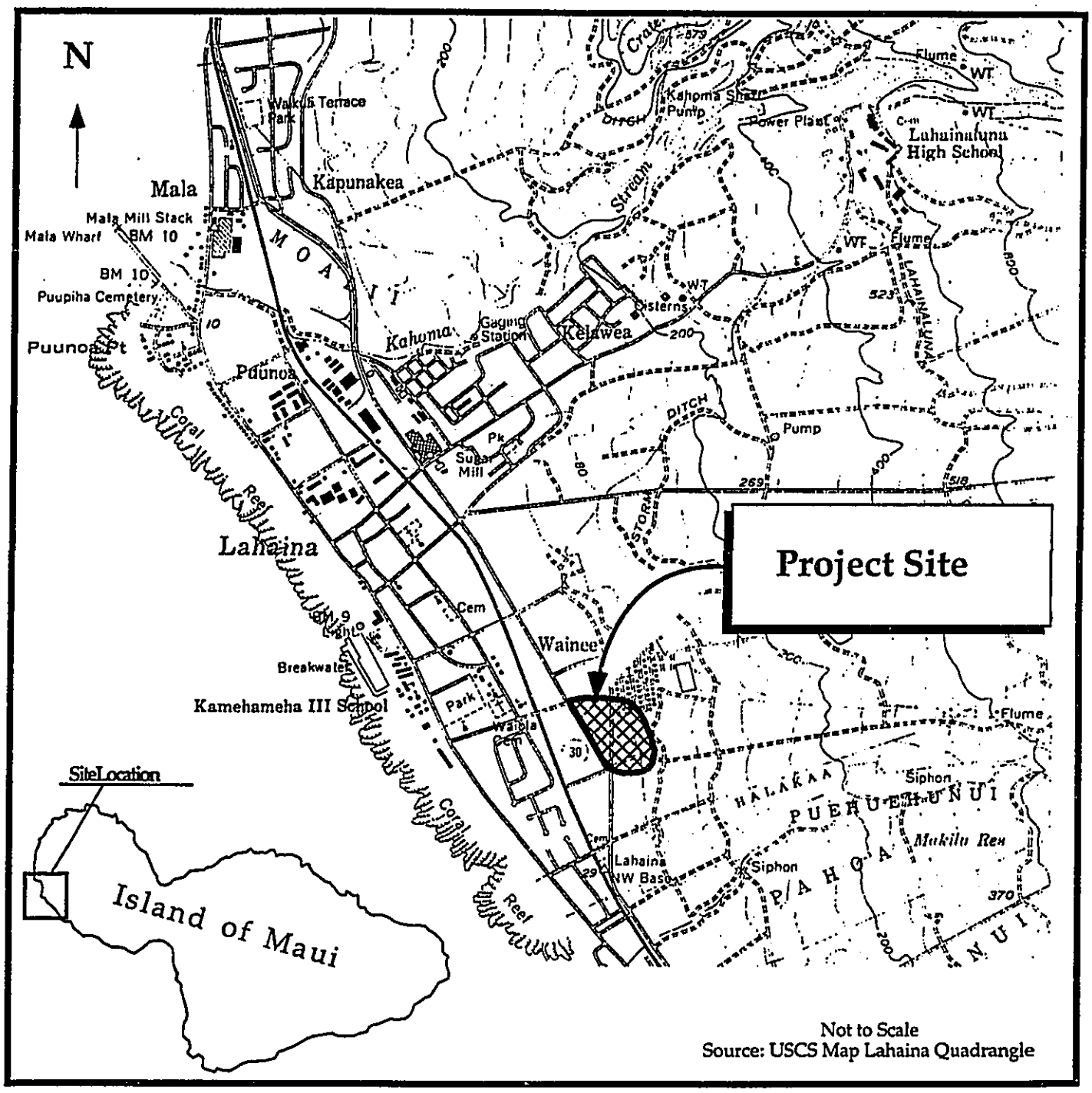
US Department of Agriculture, Soil Conservation Service in Cooperation with the University of Hawai`i, Agricultural Experiment Station, *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawai`i*, 1972.

US Department of Interior, National Park Service, *National Register of Historic Places Registration Form*, April 1994.

University of Hawai`i, Department of Geography, *Atlas of Hawai`i*, Second Edition, 1983.

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

FIGURES



Regional Location Map

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i
TMK 4-6-15: Portion 01

CHRIS HART & PARTNERS

Figure No. 1

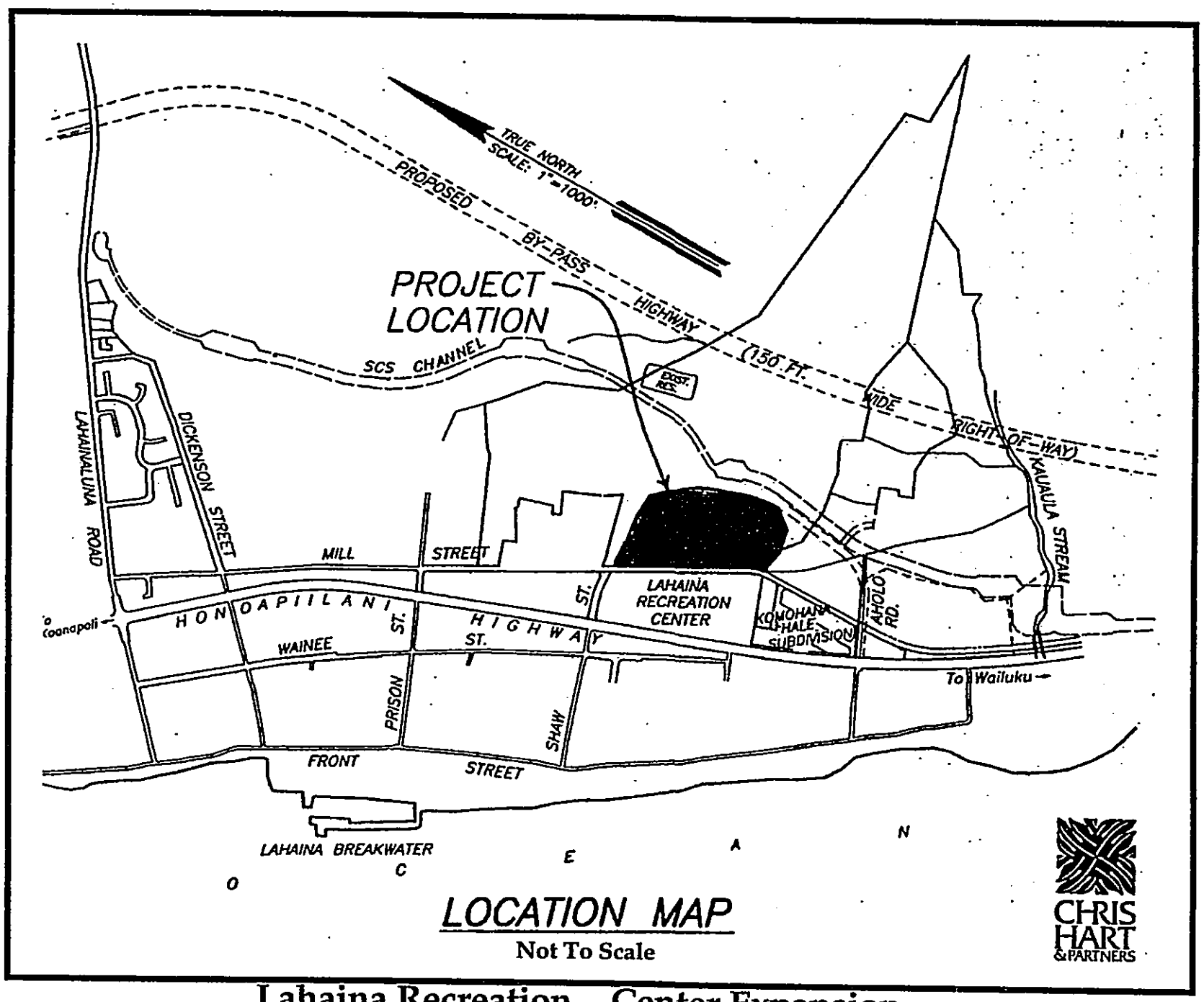
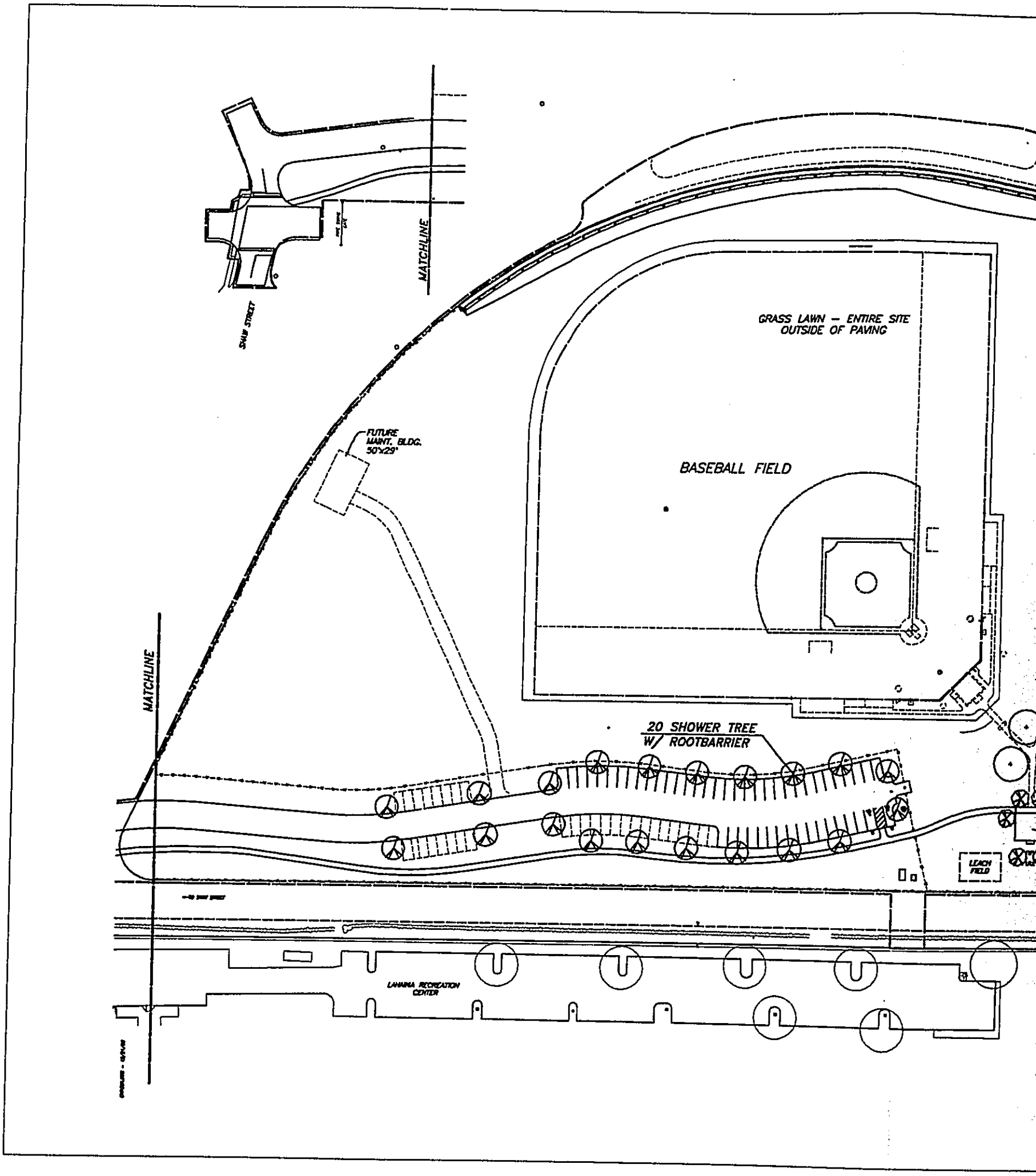
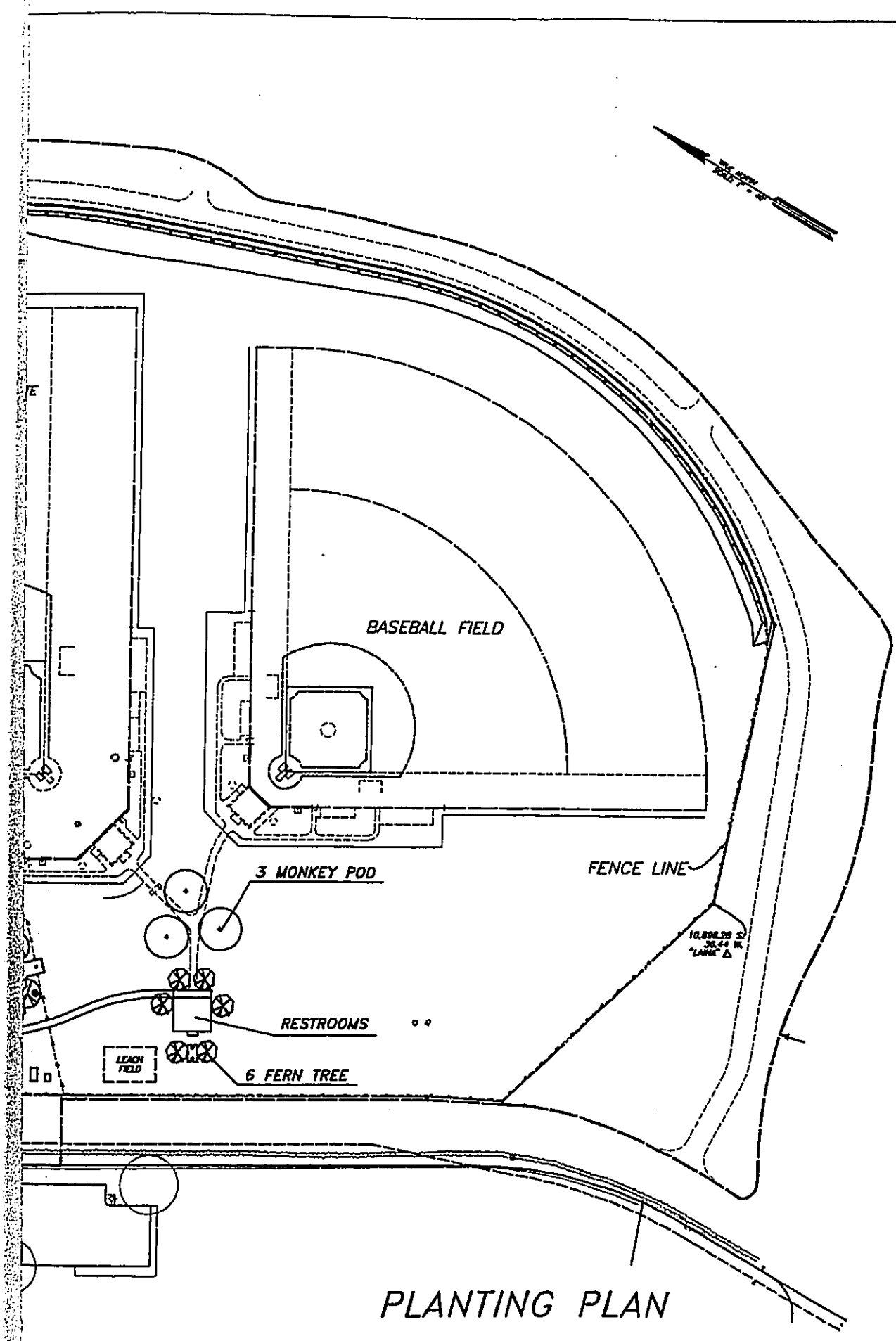


Figure No. 2

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i


MATCHLINE
SHAW STREET
FUTURE
MAINT. BLDG.
30'x29'
GRASS LAWN – ENTIRE SITE
OUTSIDE OF PAVING
BASEBALL FIELD
MATCHLINE
20 SHOWER TREE
W/ ROOTBARRIER
LEACH
FIELD
LAHAINA RECREATION
CENTER



CHRIS HART & PARTNERS

RONALD M. FUKUMOTO ENGINEERING, INC.
1721 WILI PA LOOP, STE. 203
WAILUKU, HAWAII 96793-1613
PHONE: (808) 242-1691
FAX: (808) 244-1834
EMAIL: info@rmfengineering.com

PREPARED FOR:
AMFAC/JMB HAWAII, INC.
2330 KEKAA DRIVE
LAHAINA, HAWAII 96761

LAHAINA RECREATION CENTER EXPANSION
T.M.K.: (2) 4 - 6 - 15 : POR. 1
LAHAINA, MAUI, HAWAII

PLANTING PLAN

WILLIAM MITCHELL
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 0173
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DESIGNED BY: W.M.
DRAWN BY: K.T.
CHECKED BY: W.M.
DATED: APRIL 15, 1989
FILE NO.: CHP2SRLDRG

SHEET
L-2
8 OF 16

Figure No. 3

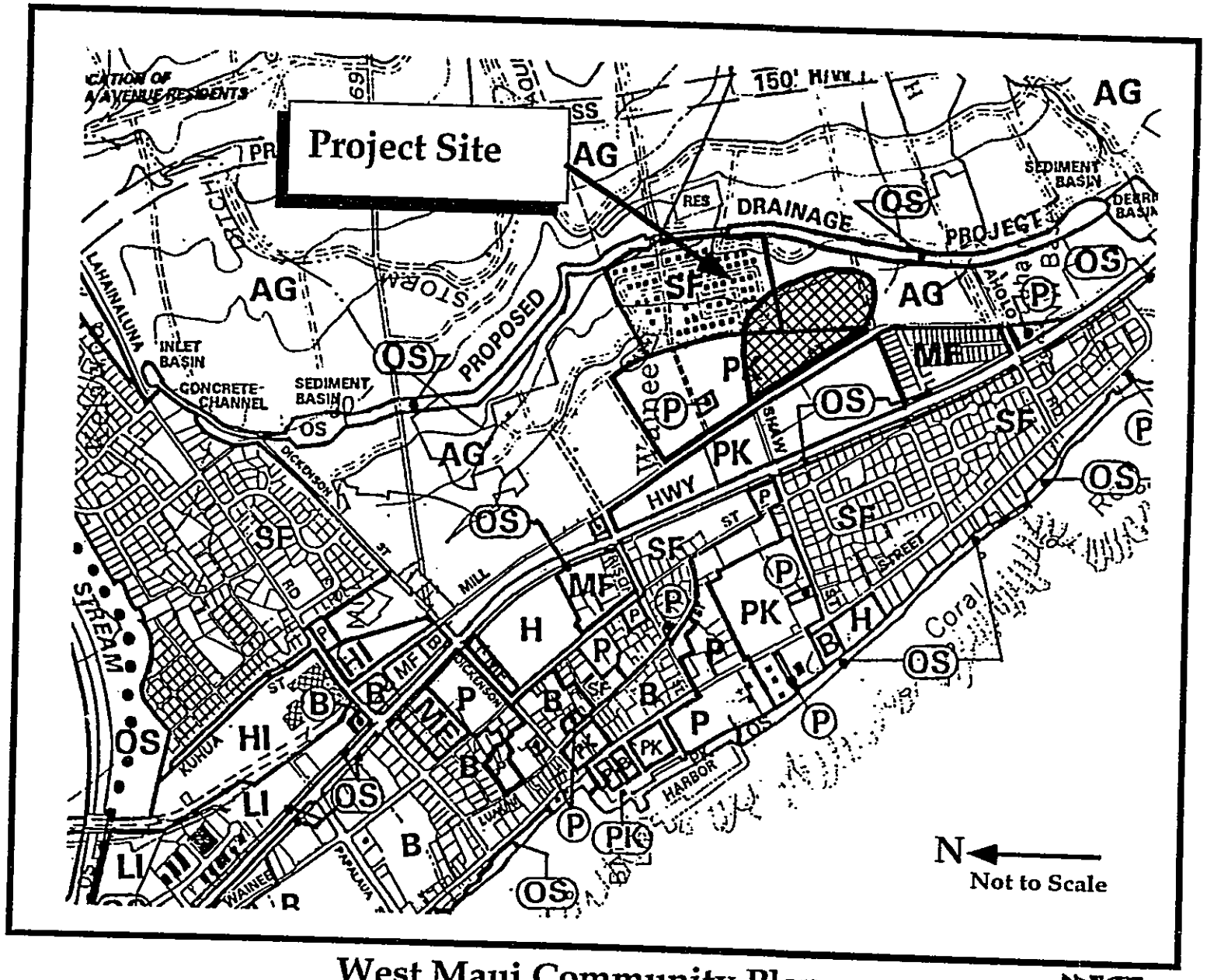
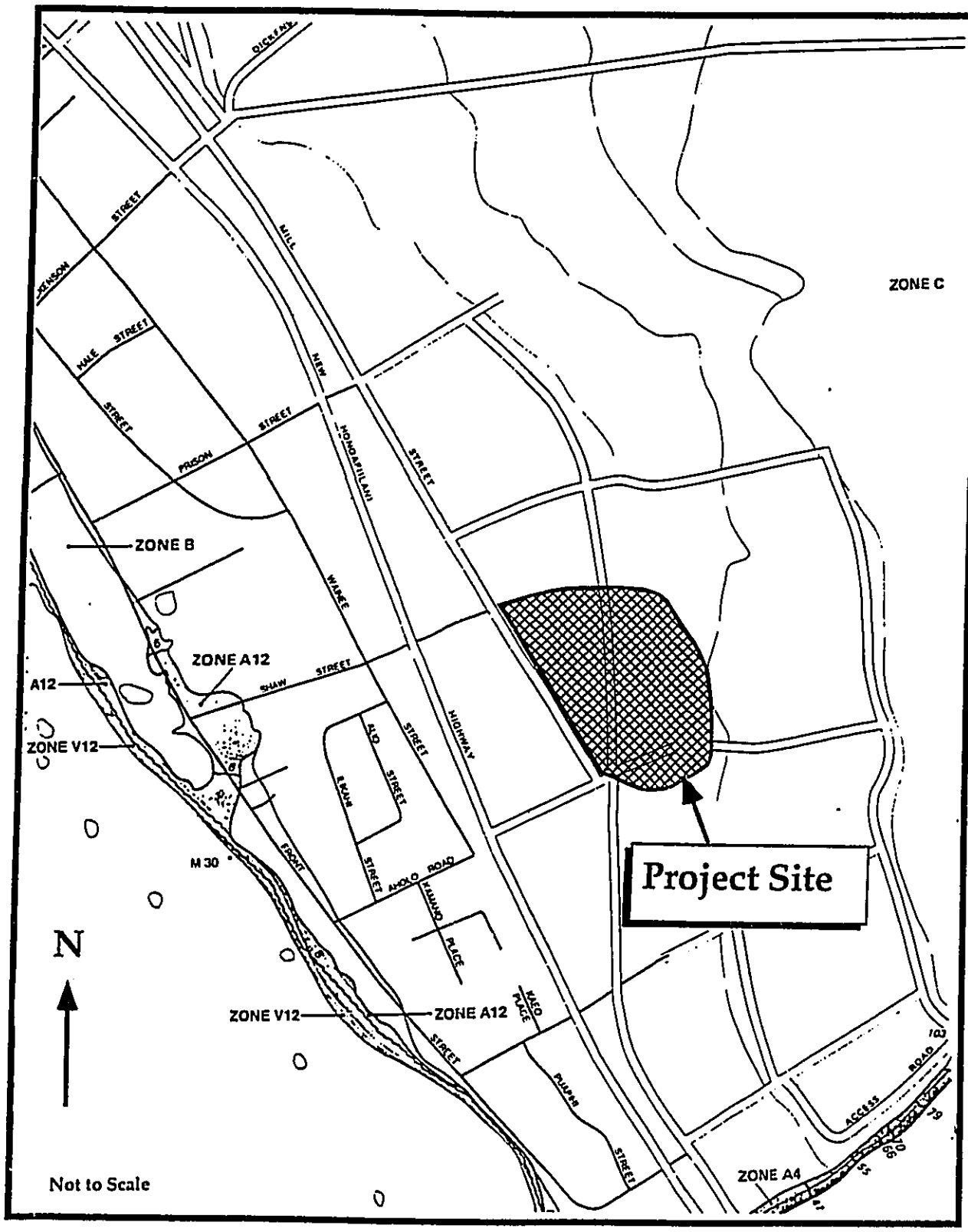


Figure No. 4

West Maui Community Plan
Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i

CHRIS HART & PARTNERS

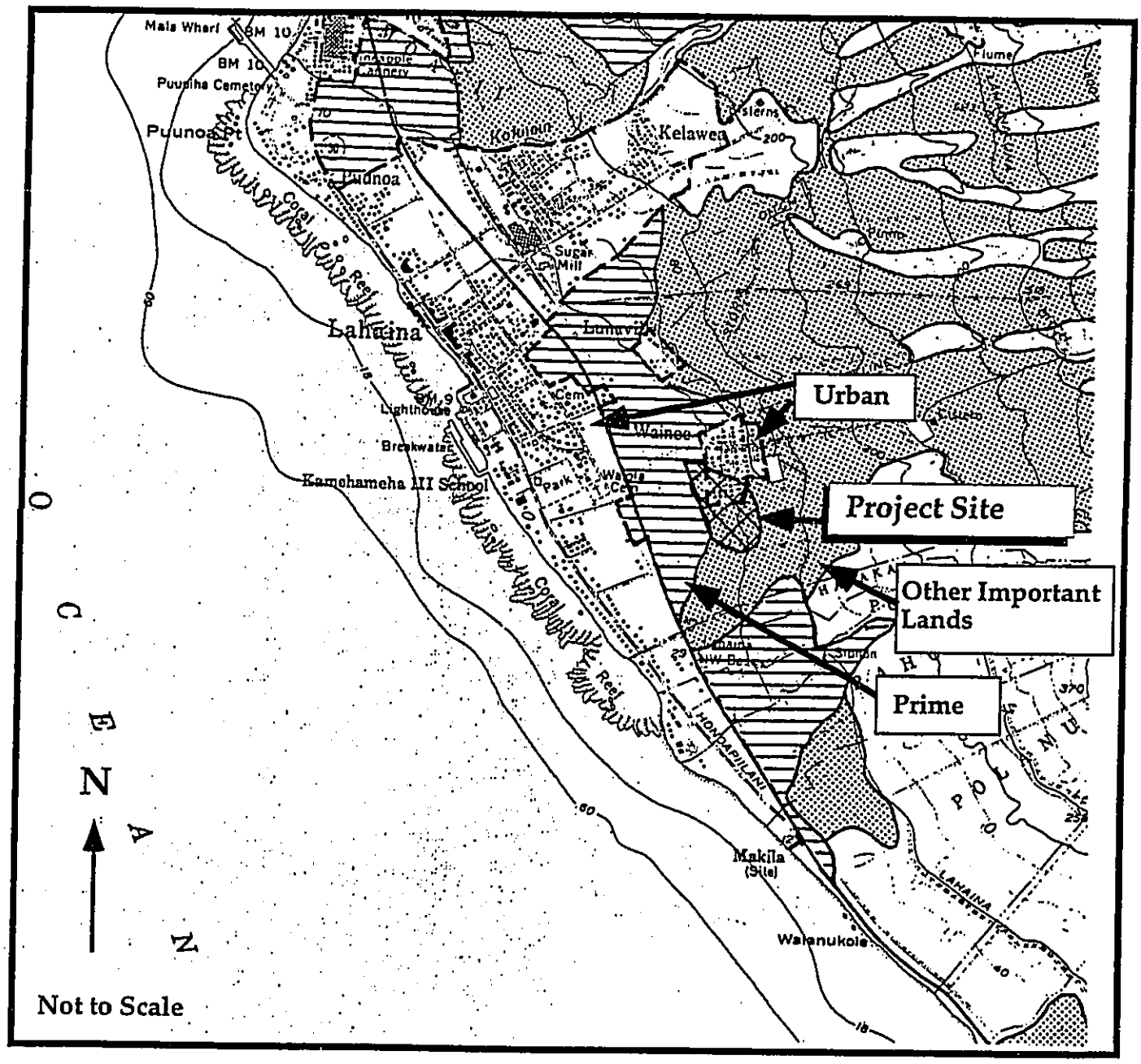


Flood Insurance Rate Map

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i

CHRIS HART & PARTNERS

Figure No. 5



Agricultural Lands of Importance to the State of Hawai`i

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i

CHRIS HART &PARTNERS

Figure No. 6

APPENDICES

APPENDIX A

Preliminary

DRAINAGE AND EROSION CONTROL REPORT
FOR
WAINEE PARK
LAHAINA, MAUI, HAWAII
TMK: (2) 4-6-15: PORTION OF 1

Prepared for

Chris Hart & Partners
1955 Main Street
Wailuku, Hawaii 96793

Owner

Department of Parks and Recreation
County of Maui
1580 Kaahumanu Avenue
Wailuku, Hawaii 96793

March 1999

Ronald M. Fukumoto Engineering, Inc.
1721 Wili Pa Loop, Suite 203
Wailuku, Hawaii 96793

TABLE OF CONTENTS

I. Purpose 1

II. Project Description and Location 1

III. Drainage

A. Existing Conditions 1
B. Developed Conditions ..... 1 - 2

IV. Conclusion 2

V. Soil Erosion Control Measures 2

VI. Reference 3

List of Figures

Figure 1 – Location Map 4
Figure 2 – Preliminary Grading Plan 5

Appendices

Appendix A – Drainage Computations ..... A-1 thru A-2
Appendix B – Soil Erosion Control Plan ..... B-1 thru B-2

I. PURPOSE

The purpose of this report is to present hydrologic and hydraulic design computations for the Wainee Park development. This report will also review the potential movement of soil in accordance with Chapter 20.08, Soil Erosion and Sedimentation Control of the Maui County Code.

II. PROJECT DESCRIPTION & LOCATION

The Wainee Park development is located mauka of the Lahaina Recreation Center, being a portion of TMK: (2) 4-6-15: parcel 1 in Lahaina on the island of Maui. The development site is bound by Mill Street on the west, Wainee Village on the northeast, and cane fields along the remainder of its sides. (See Figure 1 – Location Map.) Access to the park is from the existing cane haul road leading to Wainee Village. The park's entrance is located approximately 60 feet mauka of the Shaw and Mill Street intersection.

The park site is 13.712 acres. The site will be developed with a Sr. Little league/Pony league field, Little league/softball field, restroom facility and 50 paved parking stalls including 2 accessible stalls. Offsite improvement include signage and pavement markings at the Mill Street and Shaw Street intersection, pedestrian crosswalks and an asphaltic concrete sidewalk leading into the park site.

III. DRAINAGE

A. Existing Conditions

The proposed project site is presently used for sugar cane cultivation. The existing ground within the park site slopes from an elevation of about 50 feet above mean sea level to an elevation of 20 feet at the proposed park entrance. The average ground slope is about 2.5 percent.

The project site is located 150 to 250 feet makai of an existing irrigation ditch. This ditch intercepts runoff from the upstream areas and allows the flows to bypass the park site. (See Figure 1 – Location Map.)

Runoff from the project site flows towards Mill Street. The runoff flows along Mill Street in a northwesterly direction along Mill Street before entering an existing drainage depression which is located adjacent to the Lahaina Aquatic Center site. The sump allows the runoff to pond before flowing across the highway during periods of heavy rainfall.

According to the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*, the on-site soil consists of Ewa silty clay loam (EaA) and Wainee very stony silty clay (WxB). The soil survey describes these soils as having slow/medium runoff and a slight erosion hazard.

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (panel no. 15003-0163B) does not identify any flood zones affecting the proposed park site.

B. Developed Conditions

There are no on-site drainage improvements included in the park. A 2-foot high earth berm will be constructed along the mauka perimeter of the park to divert runoff from entering into the ballfields.

Alterations to the natural on-site drainage pattern will be kept to a minimum. Runoff will sheet flow over the ballfields and park into grassed swales. The park development will reduce the slope of the land to accommodate the ballfields. This reduced slope will slow runoff allowing more infiltration into the soil. The benefit of the increased infiltration, however, is offset by the paved parking lot and walkways. The on-site surface runoff generated by the park development is 8.5 cfs, no runoff increase due to the development. The natural drainage patterns of the site will remain. During periods of heavy rainfall, the runoff will flow along Mill Street before entering the existing sump and eventually discharging across Honoapiilani Highway.

IV. CONCLUSION

Development of the project will not result in any significant increase in peak flow rates and runoff volumes. The addition of impervious areas such as roofs, parking lots, and other paved areas is minimal. The flat graded and manicured lawns developed for the ball fields will encourage infiltration by reducing runoff flow velocities. Therefore, there will be no adverse effects on the adjacent and downstream properties resulting from the development of this project.

V. SOIL EROSION CONTROL MEASURES

The Wainee Park development consists of about 13.7 acres. The project grading area, however, encompasses about 15.5 acres. This report evaluates the potential of soil loss based on the 15.5-acre grading area.

The following is a summary of the soil loss computations based on the Universal Soil Loss Equation. (See Appendix B - Soil Erosion Control Plan.)

Area:	15.5 acres
Uncontrolled Erosion Rate:	10 tons/acre/year
Allowable Erosion Rate:	460 tons/acre/year
Severity Number:	1,085
Allowable Severity Number:	50,000

Conclusion:

The figures above indicate that soil loss is within the allowable limits. The uncontrolled erosion rate 10 (tons/acre/year) is lower than the allowable erosion rate (460 tons/acre/year) and the severity number (1,085) is lower than the allowable severity number (50,000).

Normal erosion control measures, including diversion ditches and silt screens will prevent excessive soil loss during construction.

Erosion control measures during construction shall also include limiting the area of clearing and grubbing, sprinkling for dust control, installing and maintaining dust screens, minimizing the construction period, and constructing or installing permanent erosion control measures as soon as possible.

VI. REFERENCES

1. R. M. Towill Corporation, ***Drainage Master Plan for the County of Maui***, Honolulu, Hawaii, October 1971.

2. County of Maui, "Title MC-15, Department of Public Works and Waste Management, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui", Wailuku, Hawaii, November 1995.

3. City and County of Honolulu, Department of Public Works, Division of Engineering, ***Storm Drainage Standards***, Honolulu, Hawaii, May 1988.

4. Federal Emergency Management Agency, National Flood Insurance Program, ***FIRM, Flood Insurance Rate Map***, Maui County, Hawaii, Community-Panel Number 15003-0163B, June 1, 1981.

5. U. S. Department of Agriculture, Soil Conservation Service, ***Erosion and Sediment Control Guide for Hawaii***, Honolulu, Hawaii, March 1981.

6. U. S. Department of Agriculture, Soil Conservation Service, ***Rainfall-Frequency Atlas of the Hawaiian Islands***, Honolulu, Hawaii, 1962.

7. U. S. Department of Agriculture, Soil Conservation Service, ***Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, Lanai, State of Hawaii***, Washington, D.C., August 1972.

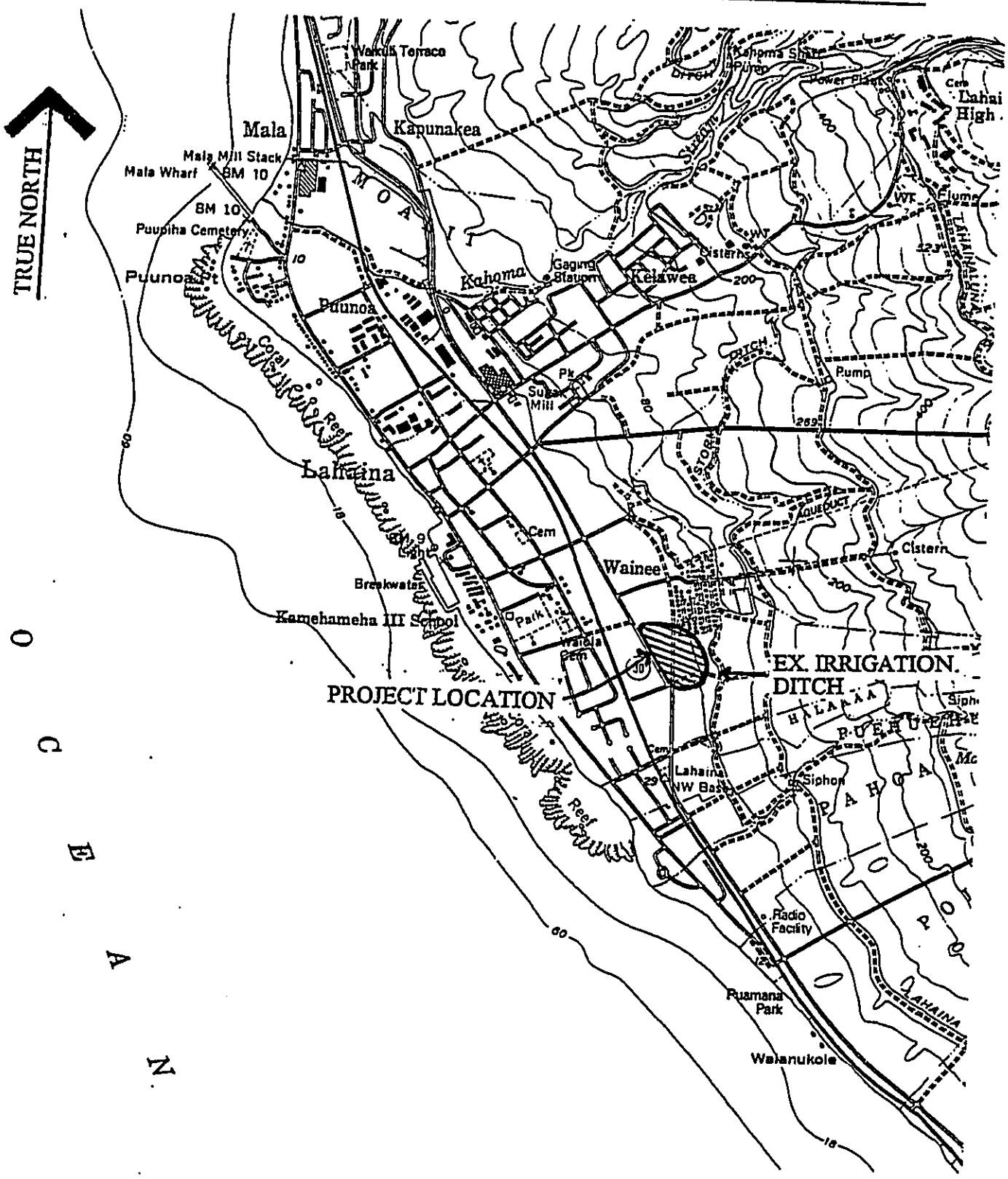


FIGURE 1
Location Map (USGS MAP)

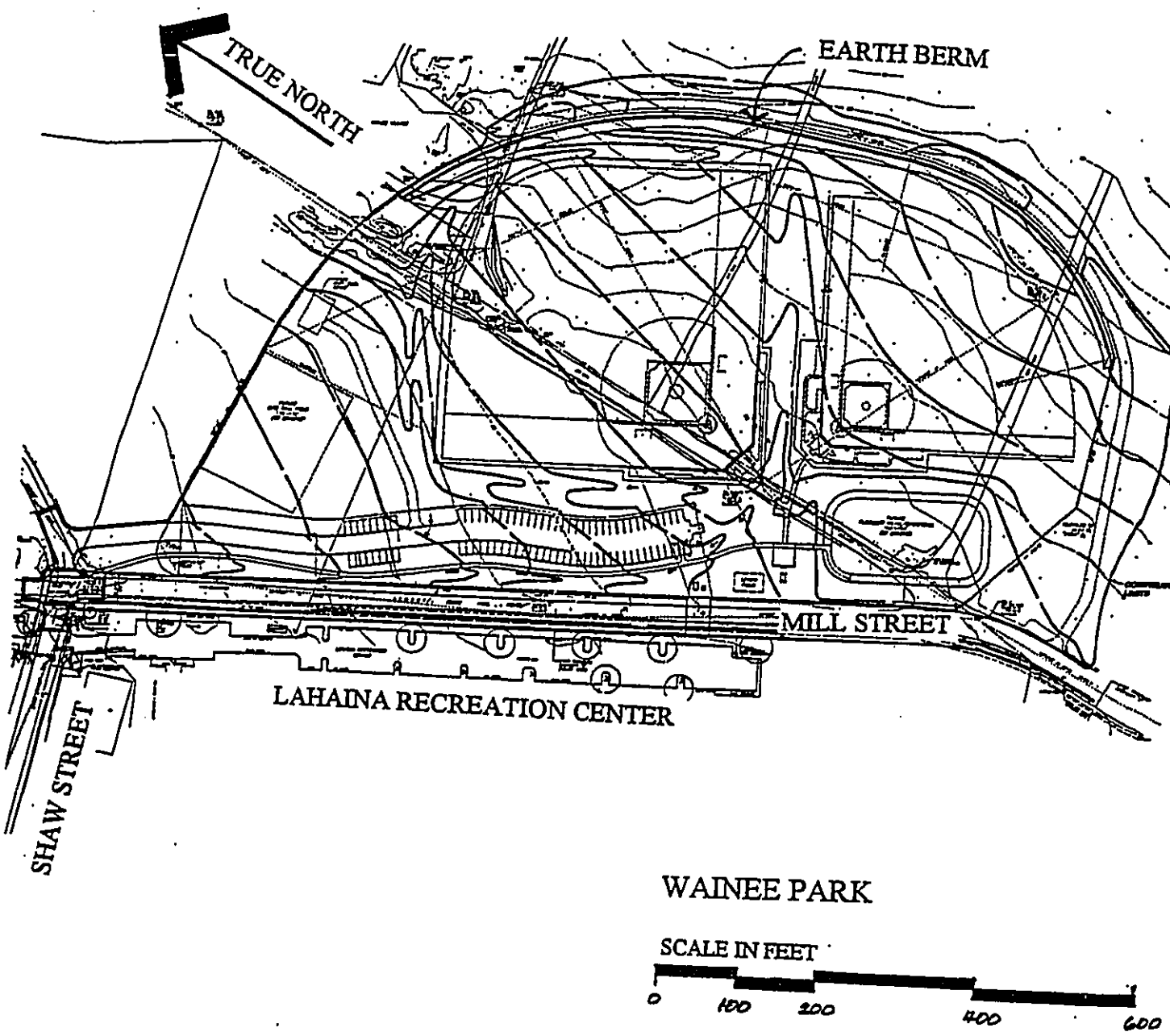


FIGURE 2
Grading Plan

APPENDIX A

DRAINAGE COMPUTATIONS

PURPOSE: To calculate the existing and developed on-site surface runoff generated by the Wainee Park development. The runoff computations are based on the rational method using a 10 year, 1-hour rainfall recurrence interval.

1. EXISTING CONDITIONS:

A. RUNOFF COEFFICIENT

From Table 1, Ref. 1:

Infiltration:	Slow/Medium	0.11
Relief:	Flat (2.5%)	0.00
Vegetal Cover:	High	0.00
Development Type:	Agricultural	0.15
	C =	0.26

B. *EXISTING RUNOFF*

Determine 10-year recurrence interval runoff for existing conditions.

Drainage Area = 13.7 acres

Rainfall (I_{10}) = 2.0 inches (From Plate III-14, Ref. 1)

Time of Concentration (T_c) = 45 minutes

Rainfall Intensity (i_{10}) = 2.4 inches/hour (From Plate 4, Ref. 1)

Q_{10} = CiA = 0.26 x 2.4 x 13.7= 8.5 cfs

2. DEVELOPED CONDITIONS:

A. RUNOFF COEFFICIENT

Infiltration:	Slow/Medium	0.11
Relief:	Flat (2.0%)	0.00
Vegetal Cover:	High	0.00
Development Type:	Park	0.15
	C =	0.26

B. DEVELOPED RUNOFF

Determine 10-year recurrence interval runoff for developed conditions.

Drainage Area = 13.7 acres

Rainfall (I_{10}) = 2.0 inches (From Plate III-14, Ref. 1)

Time of Concentration (T_c) = 43 minutes

Rainfall Intensity (i_{10}) = 2.4 inches/hour (From Plate 4, Ref. 1)

$Q_{10} = CiA = 0.26 \times 2.4 \times 13.7 = 8.5$ cfs

3. INCREASE DUE TO DEVELOPMENT

No runoff increase due to development.

8.5 cfs – 8.5 cfs = 0 cfs

APPENDIX B

SOIL EROSION CONTROL MEASURES

1. SITE CONDITIONS DURING CONSTRUCTION:

The project limits will be cleared, grubbed, and graded in one increment. Exposed areas will be grassed or paved immediately after grading work.

2. UNCONTROLLED EROSION RATE:

Erosion rate as set forth by the Maui County Code:

$E = R \times K \times LS \times C \times P$

Where:

E	=	Uncontrolled Erosion Rate (Soil Loss) in tons/acre/year
R	=	Rainfall Factor = 170 *tons/acre/year*
K	=	Soil Erodibility Factor (Ewa/Wainee) = 0.14
L	=	Slope Length = 1365 feet
S	=	Slope Gradient = 2.0%
LS	=	Topographic Factor = 0.44
C	=	Cover Factor (to be determined if necessary) Use bare soil factor = 1.0
P	=	Control Factor (to be determined if necessary) Use non-agricultural land = 1.0
E	=	170 tons/acre/year x 0.14 x 0.44 x 1.0 x 1.0
	=	10 tons/acre/year

3. ALLOWABLE EROSION RATE:

Coastal Water Hazard (D) = 1

Downstream Hazard (F) = 4

Duration of Site Work (T) = ½ year

Maximum Allowable Construction Area x Erosion Rate = 7,143 tons/year

Project Construction Area (A) = 15.5 acres

Allowable Erosion Rate: $\frac{7,143 \text{ tons/year}}{15.5 \text{ acres}} = 460 \text{ tons/acre/year}$

4. REDUCTION IN EROSION RATE:

$$\frac{\text{Allowable Erosion Rate}}{\text{Uncontrolled Erosion Rate}} = \frac{460 \text{ tons/acre/year}}{10 \text{ tons/acre/year}} = 46 > 1.0$$

Therefore, no reduction in erosion is required.

5. SEVERITY NUMBER (H) = (2 F T + 3 D) A E

H = Severity Number

F = Downstream Hazard = 1

D = Coastal Water Hazard = 4

T = Duration of Site Work (years) = ½

A = Project Construction Area (acres) = 15.5

E = Uncontrolled Erosion Rate (tons/acre/year) = 10

H = (2 x 4 x ½ + 3 x 1) x 15.5 x 10 = 1085 < 50,000

6. CONCLUSION

Normal construction erosion control measures are sufficient for this project with no excessive soil loss occuring.

APPENDIX B

Traffic Impact Assessment for
Proposed Expansion of Lahaina Recreation Center
in Lahaina, Maui, Hawaii
October 25, 2000
Revised October 25, 2000

Project Location and Description of Proposed Project

The proposed project is the expansion of the Lahaina Recreation Center in the Lahaina area of Maui. The project is located east of the existing recreational center, which is east of Honoapiilani Highway. Access to the site is via Shaw Street.

The project is described as follows:

1. Two baseball fields will be constructed to replace two fields currently located in Malu o Lele Park, which is at the corner of Front Street and Shaw Street in Lahaina.

2. Approximately 50 parking spaces will be constructed for the two new baseball fields.

3. The total area of the expansion is 15.5 acres. However, all of this area will not be utilized.

Purpose and Objectives of Study

1. Identify and document the traffic related impacts of the proposed expansion.

2. Determine if any traffic related improvements are required to provide adequate access to and egress from the project site.

Methodology

1. Perform a reconnaissance for the study area to determine existing roadway conditions, including lane configurations and right-of-way controls.

2. Obtain afternoon peak hour traffic counts at the intersection of Honoapiilani Highway at Shaw Street.

3. Estimate the daily and peak hour traffic that the proposed project will generate.

4. Perform a level-of-service analysis of existing traffic conditions and existing plus project conditions at the intersection of Honoapiilani Highway at Shaw Street to quantify the impacts of the project

Background (Existing) Traffic Conditions

In the vicinity of the propose project, Honoapiilani Highway is a two-lane State highway with one lane in each direction. The intersection with Shaw Street is signalized and there are separate left turn lanes for traffic turning onto Shaw Street. Left turn phasing in protected-permissive.

Shaw Street is a two-lane, two-way local street.

Because of the project schedule and limited time available for this study, it was not possible to obtain traffic counts for the intersections of Honoapiilani Highway at Shaw Street for a time period when the facilities of the park were fully used. Therefore, worse-case background peak hour traffic volumes were estimated from

annual traffic counts performed by Hawaii Department of Transportation, *Maui Long Range Transportation Plan* performed by Kaku & Associates, and *A Traffic Analysis for the Lahaina Recreation Center*, also performed by Kaku & Associates. The resulting estimate of worse-case traffic volumes are shown in Attachment A.

A level-of-service analysis was performed for existing conditions. The level-of-service analysis concluded that the intersection operates at Level-of-Service C with delays to the westbound to southbound left turns.

Traffic Characteristics of Proposed Project

Trip Generation

The amount of traffic that a project will generate is typically estimated using trip generation rates and procedures described in *Trip Generation*[1]. However, there are no rates for the type of recreational facility proposed. The amount of traffic that the project will generate was therefore estimated using the following assumptions:

1. There will be 12 players per team,
2. There will be 2 coaches per team,
3. There will be 4 officials per game,
4. All traffic for a game would arrive within one hour before the game or depart within one hour after the game.
5. The number of players, coaches, or officials per vehicle will be one, and
6. 25% of the trips will be drop-offs.

Using the assumptions listed above, the number of trips per game was estimated as follows:

Inbound Trips = 2 x (players + coaches) + officials = 2 x (12 + 2) + 4 = 32

Outbound Trips = 0.25 x Inbound Trips = 0.25 x 32 = 8

To represent a worse-case condition, it was further assumed that both baseball fields would be used for two games each and that the overlapping traffic for both fields would occur during the peak hour of traffic on the adjacent street.

Using these assumptions, it was determined that 80 inbound and 80 inbound trips during the peak hour would represent a worse-case condition.

Traffic Projections

Project related trips were distributed and assigned based on available approach and departure routes to and from the project and information provided in the *Traffic Study for Lahaina Recreation Center.* Calculation of the traffic projections is shown in Attachment A.

---

[1] Institute of Transportation Engineers, *Trip Generation*, Washington, D.C., 1997

Traffic Impacts of Proposed Project

The impact of the proposed project was determined by calculating the change in level-of-service analysis for existing and existing plus project conditions. A summary of the level-of-service analysis and the level-of-service worksheets are presented as Attachment B.

Conclusions and Recommendations

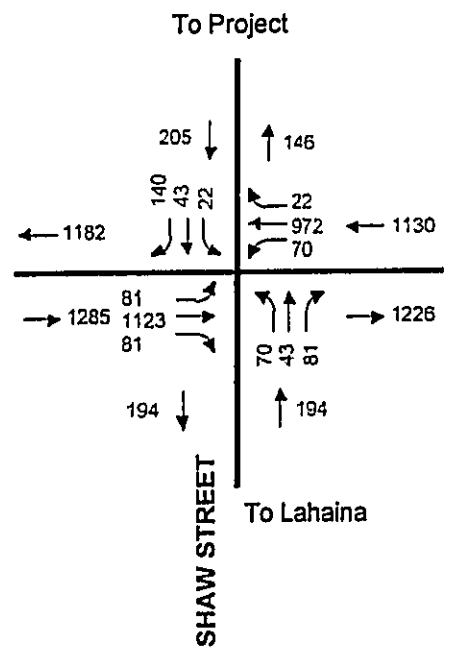
The conclusion of the impact analysis are:

1. Overall, the level-of-service of the intersection of Honoapiilani Highway at Shaw Street will be C without and with the project. Because the Level-of-Service is C with the project, no mitigation measures are recommended.

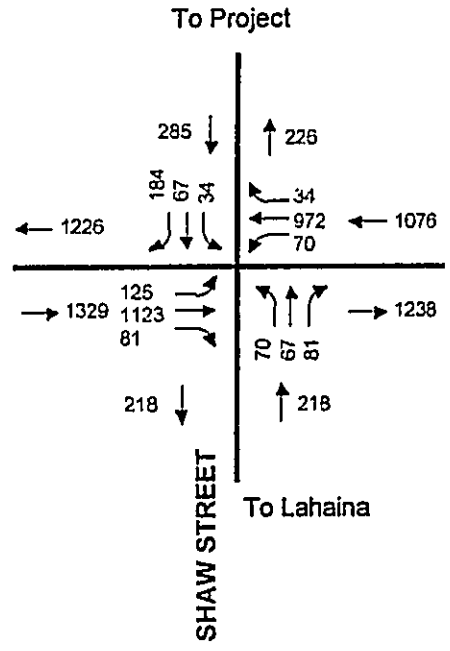
2. There is a change in the Level-of-Service from D to F for the northbound left and through movement. This is because traffic is being added to a movement that must wait for the traffic signal to go through the eastbound and westbound through movement, which is a long phase (78 seconds).

Attachment A
Traffic Projection Worksheet

No.	Approach.	Mvt.	Estimated 2000 Trips	Project Trips	Estimated Trips
1	North	Rt	140	44	184
2		Th	43	24	67
3		Lt	22	12	34
4	East	Rt	22	12	34
5		Th	972	0	972
6		Lt	70	0	70
7	South	Rt	81	0	81
8		Th	43	24	67
9		Lt	70	0	70
10	West	Rt	81	0	81
11		Th	1123	0	1123
12		Lt	81	44	125
TOTAL			2748	160	2908



WITHOUT PROJECT



WITH PROJECT

Attachment B
Results of Level-of-Service Analysis

Intersection and Movement	Background			Background Plus Project			Changes	
	V/C[2]	Delay[3]	LOS[4]	V/C	Delay	LOS	V/C	Delay
Honoapiilani Highway at Shaw Street	0.982	19.4	C	1.041	22.6	C	0.059	3.2
Eastbound Left	0.290	2.4	A	0.448	3.1	A	0.158	0.7
Eastbound Thru & Right	1.035	22.8	C	1.034	22.7	C	-0.001	-0.1
Westbound Left	0.517	8.9	B	0.517	8.9	B	0.000	0.0
Westbound Thru & Left	0.993	13.5	B	1.008	16.6	C	0.015	3.1
Northbound Left & Thru	0.597	38.4	D	0.919	69.1	F	0.322	30.7
Northbound Right	0.194	32.8	D	0.194	32.8	D	0.000	0.0
Southbound Left & Thru	0.299	33.5	D	0.583	38.3	D	0.284	4.8
Southbound Right	0.131	27.1	D	0.270	28.2	D	0.139	1.1

NOTES:
1. Peak hour conditions analyzed are "worst-case" conditions, which is the sum of the peak hour of the adjacent street plus the peak hour of the generator.
2. V/C denotes ratio of volume to capacity.
3. Delay is in seconds per vehicle.
4. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay.
5. Volume to capacity ratios are not calculated for unsignalized intersections.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

Attachment B
Results of Level-of-Service Analysis

Intersection and Movement	Background			Background Plus Project			Changes	
	V/C[2]	Delay[3]	LOS[4]	V/C	Delay	LOS	V/C	Delay
Honoapiilani Highway at Shaw Street	0.982	19.4	C	1.041	22.6	C	0.059	3.2
Eastbound Left	0.290	2.4	A	0.448	3.1	A	0.158	0.7
Eastbound Thru & Right	1.035	22.8	C	1.034	22.7	C	-0.001	-0.1
Westbound Left	0.517	8.9	B	0.517	8.9	B	0.000	0.0
Westbound Thru & Left	0.993	13.5	B	1.008	16.6	C	0.015	3.1
Northbound Left & Thru	0.597	38.4	D	0.919	69.1	F	0.322	30.7
Northbound Right	0.194	32.8	D	0.194	32.8	D	0.000	0.0
Southbound Left & Thru	0.299	33.5	D	0.583	38.3	D	0.284	4.8
Southbound Right	0.131	27.1	D	0.270	28.2	D	0.139	1.1

NOTES:
1. Peak hour conditions analyzed are "worst-case" conditions, which is the sum of the peak hour of the adjacent street plus the peak hour of the generator.
2. V/C denotes ratio of volume to capacity.
3. Delay is in seconds per vehicle.
4. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay.
5. Volume to capacity ratios are not calculated for unsignalized intersections.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 10-25-2000
Phillip Rowell And Associates

Streets: (E-W) Honoapiilani HighWAY (N-S) Shaw Street
Analyst: PJR File Name: CASE1PM.HC9
Area Type: CBD 10-19-0 PM Peak
Comment: 2000 background Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	1	0	> 1	1
Volumes	81	1123	81	70	972	22	70	43	81	22	43	140
Lane W (ft)	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vols			40			20			40			100
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*	*	*		NB Left	*			
Thru		*	*		Thru	*			
Right		*	*		Right	*			
Peds					Peds				
WB Left	*		*		SB Left	*			
Thru			*		Thru	*			
Right			*		Right	*			
Peds					Peds				
NB Right					EB Right				
SB Right		*			WB Right				
Green	4.0A	12.0P	78.0P		Green	20.0A			
Yellow/AR	0.0	0.0	3.0		Yellow/AR	3.0			

Cycle Length: 120 secs Phase combination order: #1 #2 #3 #5

Intersection Performance Summary

Lane Group:		Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	310	1593	0.290	0.783	2.4	A	21.5	C
	TR	1251	1668	1.035	0.750	22.8	C		
WB	L	151	1593	0.517	0.683	8.9	B	13.2	B
	TR	1089	1676	0.993	0.650	13.5	B		
NB	LT	211	1266	0.597	0.167	38.4	D	36.9	D
	R	238	1425	0.194	0.167	32.8	D		
SB	LT	241	1443	0.299	0.167	33.5	D	31.1	D
	R	344	1425	0.131	0.242	27.1	D		

Intersection Delay = 19.4 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.982

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 10-25-2000
Phillip Rowell And Associates

Streets: (E-W) Honoapiilani HighWAY (N-S) Shaw Street
Analyst: PJR File Name: CASE2PM.HC9
Area Type: CBD 10-19-0 PM Peak
Comment: 2000 Plus Project Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	1	0	> 1	1
Volumes	125	1123	81	70	972	34	70	77	81	34	67	184
Lane W (ft)	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vols			40			20			40			100
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*	*	*		NB Left	*			
Thru		*	*		Thru	*			
Right		*	*		Right	*			
Peds					Peds				
WB Left	*		*		SB Left	*			
Thru			*		Thru	*			
Right			*		Right	*			
Peds					Peds				
NB Right					EB Right				
SB Right		*			WB Right				
Green	4.0A	12.0P	78.0P		Green	20.0A			
Yellow/AR	0.0	0.0	3.0		Yellow/AR	3.0			

Cycle Length: 120 secs Phase combination order: #1 #2 #3 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	310	1593	0.448	0.783	3.1	A	20.8	C
	TR	1251	1668	1.034	0.750	22.7	C		
WB	L	151	1593	0.517	0.683	8.9	B	16.1	C
	TR	1087	1673	1.008	0.650	16.6	C		
NB	LT	178	1071	0.919	0.167	69.1	F	61.1	F
	R	238	1425	0.194	0.167	32.8	D		
SB	LT	192	1152	0.583	0.167	38.3	D	33.7	D
	R	344	1425	0.270	0.242	28.2	D		

Intersection Delay = 22.6 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 1.041

APPENDIX C

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

August 25, 1999

Mr. Floyd S. Miyazono, Director
Department of Parks and Recreation
County of Maui
1580-C Kaahumanu Avenue
Wailuku, Hawaii 96793

Dear Mr. Miyazono:

Subject: Draft Environmental Assessment for the Lahaina Recreational Center Expansion, Maui

Thank you for the opportunity to review the subject document. We have the following questions and comments.

1. Please describe why the proposed restrooms will not be connected to the County wastewater system. Please consult with the County Department of Public Works and Waste Management and the State Department of Health regarding this issue.

2. Activities that will be held at the new facilities, such as baseball games, will generate significant levels of vehicular traffic. Please consult with the State Department of Transportation to determine whether a traffic impact study would be required for this project.

3. Please describe what specific mitigation measures will be applied to minimize spillover, glare and other lighting impacts? Please consider designing the lighting using the Department of Land and Natural Resources' guidelines entitled The Newell's Shearwater Light Attraction Problem, A Guide for Architects, Planners, and Resort Managers to reduce lighting impacts.

4. Please fully describe the impacts from the irrigation water well development project. Please refer to applicable parts of the attached "Guidelines for Assessing Water Well Development Projects."

5. Please consult with agencies, citizen groups and individuals who may be affected by this project. Document this consultation in the final environmental assessment.

6. Please fully describe all the alternatives to the proposed project that were considered. Explain why they were not selected.

7. Please provide a list of all the permits and approvals that would be required for this project. Describe the status of each permit or approval.

8. The proposed project will consist of the construction of two baseball diamonds, one Little League/softball filed and one Senior Little League and Pony Field (total of 4 playing fields), and restroom facilities. Figure 3 shows only two baseball diamonds and the restrooms. Please indicate the locations of the Little League/softball field and the Senior Little League and Pony Field.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

Enclosure

c: Chris Hart & Partners

CHRIS HART & PARTNERS

October 31, 2000

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

Dear Ms. Salmonson:

Subject: Response to Comments on the Draft Environmental Assessment for the Lahaina Recreation Center Expansion, Maui

This letter is in response to your letter dated, August 25, 1999, which provided comments on the Draft Environmental Assessment (EA) for the Lahaina Recreation Center Expansion. The following points responds to your comments in the order they were presented.

1. The proposed restrooms will be not be connected to the County's wastewater collection system due to technical difficulties and cost constraints involved in connecting to the nearest point of adequacy. The State Department of Health has approved an individual wastewater system for the project.

2. A traffic impact study has been prepared for the project and will be included in the Final EA.

3. Lighting will be utilized in the parking lot and the playfields. Lighting in the parking lot will be downward directed in order to minimize spillover. Lighting of the ballfields needs to conform to recreational and safety requirements of the facility and therefore available mitigation measures are limited. It is noted that the ballfield lights will be used only as necessary and will not be used on a continual basis.

4. The irrigation well will be drilled and utilized only to supply irrigation water for the project. Well development will conform to the requirements of the Commission on Water Resource Management (CWRM). These requirements establish standards for well construction as well as pump installation. Well construction will incorporate standards of the CWRM in order to prevent contamination of the underlying aquifer. After the well is constructed, tests will be performed in order to determine the appropriate utilization rates. An assessment of the relationship and potential impacts of the well on the underlying aquifer will be conducted as part of the pump installation permitting requirements.

5. Documentation of agency consultation will be included in the Final EA.

6. A brief discussion of alternatives will be included in the Final EA. Land of the project was provided for and selected by Amfac, and as such there is no alternative location for the project. Alternative facilities were considered such as football fields, however, the final decision regarding facility needs were made in consultation with the community.

7. A list of required permits will be listed in the Final EA and an indication of the status of each permit will be provided.

8. Only two fields will be provided. We will edit our text to clarify the scope of the project.

Thank you for providing comments on this Environmental Assessment. If you have any questions, please do not hesitate to contact me at 242-1955.

Respectfully submitted,

Rory Frampton
Land Use Planner

cc: Mr. Floyd Miyazono, Department of Parks and Recreation

2000-11-23-MA-FEA—

Final
Environmental Assessment

Lahaina Recreation Center Expansion

Lahaina, Maui, Hawaii
TMK: 4-6-15: Portion of 01

CHRIS HART &PARTNERS

October 2000

Final
Environmental Assessment

Lahaina Recreation Center Expansion

Lahaina, Maui, Hawaii
TMK: 4-6-15: Portion of 01

Prepared for:

Department of Parks and Recreation
County of Maui
1580C Kaahumanu Avenue
Wailuku, Maui, Hawai`i 96793
Phone: 243-7230 Fax: 243-7934

Prepared by:

Chris Hart & Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793
Phone: 242-1955 Fax: 242-1956

October 2000

TABLE OF CONTENTS

SECTION PAGE

Table of Contents i
FIGURES ii
APPENDICES iii

I. INTRODUCTION 1
A. OVERVIEW OF THE REQUEST 1
B. DESCRIPTION OF THE PROPERTY 2
1. Property Location 2
2. Existing Uses 2
3. Existing Land Use Designations 2
C. PROPOSED ACTION 2
D. ALTERNATIVES CONSIDER 3
E. PERMITS REQUIRED 3
F. CONSULTED AGENCIES 3

II. ENVIRONMENT SETTING, IMPACTS AND MITIGATION MEASURES 5
A. PHYSICAL ENVIRONMENT 5
1. Surrounding Land Uses 5
2. Climate 6
3. Topography and Soils 6
4. Flood and Tsunami Hazard 7
5. Flora and Fauna 7
6. Air Quality 7
7. Noise Characteristics 8
8. Visual Resources 8
9. Archaeological/Historical Resources 9
B. SOCIO-ECONOMIC ENVIRONMENT 10
1. Population 10

2. Economy 10
C. PUBLIC SERVICES 11
1. Recreation Facilities 11
2. Police and Fire Protection 11
3. Solid Waste 11
4. Health Care 12
5. Schools 12
D. INFRASTRUCTURE 12
1. Roadways 12
2. Wastewater 13
3. Water 13
4. Drainage 14
5. Electrical and Telephone Systems 15

III. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES, AND CONTROLS ..16
A. HAWAI`I LAND USE LAW 16
B. GENERAL PLAN OF THE COUNTY OF MAUI 16
C. WEST MAUI COMMUNITY PLAN 16
D. MAUI COUNTY ZONING 17
E. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA 17

IV. FINDINGS AND CONCLUSIONS 22

V. REFERENCES 23

FIGURES

Figure No. 1 - Regional Map
Figure No. 2 - Project Location Map
Figure No. 3 - Site Plan
Figure No. 4 - West Maui Community Plan Land Use Designation Map
Figure No. 5 - Flood Insurance Rate Map
Figure No. 6 - Agricultural Lands of Importance to the State of Hawai`i

APPENDICES

Appendix A - Preliminary Drainage and Erosion Control Report for Waine`e Park

Appendix B - Traffic Impact Analysis by Phillip Rowell and Associates

Appendix C- Draft Environmental Assessment Comment Letter and Response

I. INTRODUCTION

A. OVERVIEW OF THE REQUEST

This document has been prepared in support of the proposed Lahaina Recreation Center Expansion. Pursuant to Chapter 343, Hawai`i Revised Statutes (HRS), requests for the use of state or county lands or funds requires the preparation of an Environmental Assessment. This document has been prepared to meet the requirements of Chapter 343, HRS and Environmental Impact Statement Rules, Chapter 200, Department of Health, Hawai`i Administrative Rules.

Property Owner:
Pioneer Mill Co. Ltd. (AMFAC/JMB)
P. O. Box 727
Lahaina, Maui, Hawai`i 96767

Proposing Agency:
Department of Parks and Recreation
County of Maui
1580 C Kaahumanu Avenue
Wailuku, Maui, Hawai`i 96793

Planning Consultant/Agent:
Chris Hart & Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawai`i 96793

B. DESCRIPTION OF THE PROPERTY

1. Property Location

The project site is located on the mauka side of the present Lahaina Recreation Center, a public park, and the Pioneer Mill's Cane Haul Road (Mill Street), on the south side of Shaw Street in the town of Lahaina, Island of Maui, known as TMK 4-6-15: Portion of 01 (Figures No. 1 and 2).

2. Existing Uses

The project site is 13.712 acres in size, and has been recently used for sugarcane production. The field has not been used for seed cropping for the past three years, and currently there is cane stubble in the field. A portion of the site is situated within the old Waine`e Village.

3. Existing Land Use Designations

State Land Use Commission:	*Agricultural*
West Maui Community Plan:	*Single Family, Park* and *Agricultural* (Figure No. 4)
County Zoning:	*Agricultural*
Other Designations:	None

C. PROPOSED ACTION

The proposed Lahaina Recreation Center Expansion will consist of the construction of one Little League/softball field and one Senior Little League/Pony Field, and one restroom facility. The preliminary site preparation work, including grading, grass and landscape planting, irrigation system, a 50-stall parking lot, sidewalks and restrooms, will be provided by Amfac, as part of its North Beach development SMA requirements. The County of Maui Parks Department will develop additional improvements, in phases, including perimeter fencing, overhead lighting, electronic scoreboards, an

irrigation well and pump system, and additional parking (see Figure No. 3). The improvements to be included in Phase I of the Department of Parks and Recreation plan will total $400,000, the County budget appropriation for the current year. The total County budget estimate allocated for the Lahaina Recreation Center expansion is approximately $1,000,000. The timeframe for construction of the project is contingent upon Amfac's completion of the basic improvements to the property.

D. ALTERNATIVES CONSIDER

Land for the project was provided for and selected by Amfac, and as such there is no alternative location for the project. The provision of alternative facilities, such as football fields, were considered, however, based on available facilities nearby and the needs of the community, it was determined that the provision of two baseball fields was the optimal use of the site.

E. PERMITS REQUIRED

NPDES (grading)
Grading Permit
Well Drilling
Pump Installation
Building Permit

F. CONSULTED AGENCIES

County
- Department of Public Works and Waste Management
- Department of Water Supply
- Department of Planning

State
- State Historic Preservation Division
- Commission on Water Resource Management

II. ENVIRONMENT SETTING, IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

Existing Conditions: The project site is located on the west side of Maui, adjacent to the Lahaina Recreation Center on the outskirts of historic Lahaina Town. Lahaina Town contains regional commercial services, major civic facilities and spaces, residential neighborhoods and is bounded to the east by sugarcane cultivation.

Specific uses surrounding the subject site include the following (Figures No. 2 and 4):

•North: Abutting the subject site's northern boundary are the Pioneer Mill sugarcane fields. State Land Commission: *Agricultural* District, County Zoning: *Agricultural* District, and West Maui Community Plan: *Park* and *Agricultural.*

•South: Abutting the subject site's southern boundary are the Pioneer Mill sugarcane fields and Komohana Hale Subdivision. State Land Commission: *Agricultural* and *Urban* District, County Zoning: *Agricultural* and *A-1 Apartment* Districts, and West Maui Community Plan: *Park, Agricultural* and *Multi- Family.*

•East: Abutting the subject site's eastern boundary are the Pioneer Mill sugarcane fields. State Land Commission: *Agricultural* District, County Zoning: *Agricultural* District, and West Maui Community Plan: *Park, Agricultural* and *Single Family.*

•West: Across Mill Street (a cane haul road), on the subject site's western boundary are the County of Maui's Lahaina Recreation Center and the Lahaina Aquatic Center. State Land Commission: *Agricultural* District, County Zoning: *Agricultural* District, and West Maui Community Plan: *Park* and *Single Family.*

Potential Impacts and Mitigating Measures: The project is an extension of the existing Lahaina Recreation Center. The proposed park use is compatible with the surrounding agricultural or park uses, and it is not anticipated to result in any significant impact to the surrounding properties.

2. Climate

Existing Conditions: The climate in the Lahaina region is influenced by the persistent north-northeasterly trade winds. Lahaina Town is located in the dry leeward portion of West Maui. Average annual temperature in Lahaina is 75°F. Average monthly temperatures vary by about 9 degrees between the coolest and warmest months. Rainfall at the project site averages approximately 15 inches per year.

3. Topography and Soils

Existing Conditions: The project site slopes gradually to the west, from an elevation of about 50 feet above mean sea level to an elevation of 20 feet at the proposed park entrance. The average ground slope is about 2.5 percent. There is a major Pioneer Mill irrigation ditch above the eastern boundary of the property. The site's topography has been altered through sugarcane cultivation over the past century. There are no significant topographic constraints within the project site.

There are two soil types specific to the project site. The first type is Ewa silty clay loam, 0 to 3 percent slopes (EaA). EaA soils consist of well-drained soils in basins and on alluvial fans. These soils developed in alluvium derived from basic igneous rock. Runoff is very slow and the erosion hazard is no more than slight. The second type is Waine`e very stony silty clay, 3 to 7 percent slopes (WxB). Runoff is slow and the erosion hazard is slight.

Also, as documented in the Agricultural Lands of Importance to the State of Hawai`i maps, the project site has three designations: Prime Agricultural Lands, Other Important Agricultural Lands and Existing Urban Development which is the old demolished Waine`e Village (Figure No. 6).

Potential Impacts and Mitigating Measures: Only a very small portion of the project site is classified as Prime Agricultural Land, while the majority of the remainder is classified as Other Important Lands. A portion of the parcel was included in the part of Waine`e Village that was demolished in 1981. The project site is surrounded by

sugarcane fields that have been in use for the past century, athough in the past ten years Pioneer Mill has withdrawn from agricultural operations in lands adjacent to urban areas. The project site is currently covered with cane stubble, and has not been used for seed cropping for the past three years. Given the existing amount of farmable land in West Maui and the proximity of this site to existing urban development, the proposed action is not anticipated to result in significant impacts to agricultural operations in West Maui.

4. Flood and Tsunami Hazard

Existing Conditions: The project site is designated Zone "C" by the Flood Insurance Rate Map No. 150003 163 C for the South Lahaina region. Zone "C" defines areas of minimal flooding (Figure No. 5).

Potential Impacts and Mitigating Measures: The proposed project should not be affected by nor have adverse impacts upon its neighbors or downstream properties with regard to flood hazard potential. (See Section V.D.4. Drainage for a discussion of stormwater runoff.)

5. Flora and Fauna

Existing Conditions: The project site is substantially disturbed. For the past century, the parcel has been in sugarcane production. A portion of the parcel was included in the part of Waine`e Village which was demolished in 1981. There are no rare, endangered or threatened species of plant at the site.

Animal life in the project vicinity similarly reflects the agricultural/urban character of the region. Avifauna typically found in the Lahaina region includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose.

Potential Impacts and Mitigating Measures: The project is not anticipated to result in any significant impact to the flora, fauna or animal life of the area.

6. Air Quality

Existing Conditions: Air quality in the Lahaina region is considered relatively good. Point sources (e.g., Pioneer Sugar Mill) and non-point sources (e.g., automobiles) of

emissions are not significant to generate a high concentration of pollutants. The relatively high quality of air can also be attributed to the region's constant exposure to wind, which quickly disperses concentrations of emissions. This rapid dispersion is evident during the burning of sugarcane in the fields of West Maui. Maui is currently in attainment for all criteria pollutants established by the Clean Air Act, as well as the State of Hawai`i Air Quality Standards. This means that the ambient air in Maui is in compliance with the State and Federal air quality standards (DOH pers. com.).

Potential Impacts and Mitigating Measures: Air quality impacts attributed to the proposed project could include dust generated by the short-term, construction-related activities. Site work such as grading and building construction, for example, could generate airborne particulates. Dust control measures such as limiting the area of clearing and grubbing and minimizing the construction period, as well as regular watering, sprinkling and the installation diversion ditches, silt screens and dust screens will be implemented to minimize the potential impact from wind-blown emissions.

In the long term, the increase in the number of users will result in a slight increase in the volume of traffic in the project's vicinity, which in turn could affect the air quality. However, this increase is not considered significant when compared to the overall amount of vehicles in this area. As such, the proposed project is not anticipated to be detrimental to the local air quality.

7. Noise Characteristics

Existing Conditions: Traffic noise from the cane haul road and Honoapiilani Highway are the predominant source of background noise in the vicinity of the project site. The closest residential area to the project site is the Komohana subdivision, located to the southwest of the project. The adjoining parking lot and playing fields of the present recreation center across the street are also sources of noise in this locale.

Potential Impacts and Mitigating Measures: The project site is an extension of the neighboring recreation center's use. Noise from recreation activities is not anticipated to result in any significant impact to the surrounding properties.

8. Visual Resources

Existing Conditions: The project site is located on the outskirts of the Historic Lahaina Town area. The site is not a part of the unique scenic corridor, and does not intrude in

the public view to or from the ocean. The site does not provide a valuable vantage point to scenic resources.

Potential Impacts and Mitigating Measures: Due to the location of the project, it is not anticipated to result in any significant impact to the visual resources of the area.

9. Archaeological/Historical Resources

Existing Conditions: Lahaina Town is registered in the National and State Registers of Historic Places. Portions along the mauka side of Honoapiilani Highway corridor are designated in State Site No. 50-50-03-3001, Lahaina Historic District. The project site lies just outside the boundary of the Historic District. Boyd Dixon of the Historic Preservation Division, DLNR, commented in a discussion that since the site had been cultivated in sugarcane for the past century, there was little or no chance of archaeological sites surviving in this area (DLNR pers. comm.).

Lahaina was a highly significant place in the Hawaiian Kingdom, serving as its capital during the first half of the nineteenth century. The subject parcel includes numerous 19th century Land Commission Awards, which may pertain to either agricultural holdings and/or habitation areas.

Potential Impacts and Mitigating Measures: In the unlikely event that sub-surface historic/cultural remains are encountered during construction, work will be stopped and the State Historic Preservation Office will be contacted to access the significance of the find and recommend appropriate mitigation measures, if necessary.

As noted earlier, the project site is located just outside the boundary of the Lahaina Historic District. Since the site has been previously cleared and graded for use as single family residences and agricultural uses, it is unlikely that any significant historic or cultural remains exist.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

Existing Conditions: The population of the County of Maui has exhibited relatively strong growth over the past decade with a 1997 population of 118,864, a 18.4% increase over 1990 population of 100,374 (US Bureau of the Census, 3/17/98). The 1990 population of Maui Island was 91,361 (Community Resources, Inc., March 1994). The 1990 population of Lahaina District was 14,574, a 41.7% increase over Lahaina District's 1980 population of 10,284. West Maui's de facto population for 1990 was 34,974 (Community Resources, Inc., March 1994).

Potential Impacts and Mitigating Measures: The project is not anticipated to result in any significant impact to the West Maui population.

2. Economy

Existing Conditions: The Lahaina economy is based primarily upon the visitor industry. Visitor accommodations are located near the shoreline along with necessary support facilities and residential communities. Kapalua and Kaanapali have developed into important visitor destination anchors while the old Lahaina Town, with its historic character and charm, has developed into the region's visitor, service, commercial and residential center. Agriculture is also an important part of Lahaina's economy. Sugarcane and pineapple fields are found in the Lahaina district, and the historic Pioneer Mill on Lahainaluna Road continues to process cane. However, Pioneer Mill recently announced that it will cease sugarcane operations in the near future. AMFAC and JMB are currently restructuring their Agricultural Division.

Potential Impacts and Mitigating Measures: On a short-term basis, the project will support construction and construction-related employment.

On a long-term basis, the project will provide an increase in recreation facilities for the residents of and visitors to West Maui. The proposed project will have little or no impact upon employment opportunities, and will not have any significant impact upon local population levels.

C. PUBLIC SERVICES

1. Recreation Facilities

Lahaina has a wide reputation as a recreation destination, particularly for ocean related activities. Ocean sports and recreation available in the Lahaina District include swimming, fishing, surfing, scuba diving, snorkeling, sailing, and para-sailing. There are many State and County beach parks provided for tourists and residents in the Lahaina District. The number of parks in Lahaina providing active recreation (i.e., team sports) facilities for Maui's residents is, however, limited. The project site is being provided to the County of Maui by Amfac Properties, Inc., as part of its North Beach park dedication requirement.

The subject site is an expansion of the Lahaina Recreation Center park, which is a central non-ocean County park on the west side of Maui and includes the Lahaina Aquatic Center on the north side of Shaw Street. The provision of two additional baseball diamonds will alleviate some of the overcrowding of the existing facilities. The expansion will have a positive benefit for the people of West Maui in the provision of additional sport facilities.

2. Police and Fire Protection

The Lahaina District Station of the Maui County Police Department has provided police protection for Lahaina District since 1974. The station is located behind the Lahaina Civic Center in Wahikuli.

Fire protection in the Lahaina District is provided by the Maui County Fire Department's Lahaina Station. The Lahaina Fire Station, built in 1972, is staffed by 30 firefighters. There are three shifts with ten men on each shift. The station has two fire trucks.

3. Solid Waste

Only two landfills are currently operating on Maui, the Central Maui Landfill in Puunene, and the Hana landfill. Single-family residential solid waste collection is provided by the County and taken to the Central Maui Landfill, which also accepts waste from private refuse collection companies. A convenience station is located in

Olowalu to service West Maui residents. Solid wastes are transported from this convenience station to the Central Maui Landfill. Solid waste collection for Lahaina Recreation Center is provided by private companies or by the Department of Parks and Recreation.

4. Health Care

Maui Memorial Medical Center in Wailuku, the only major medical facility on the island, serves the Lahaina region. Acute, general and emergency care services are provided by the 194-bed facility. In addition, numerous privately operated medical/dental clinics and offices are located in the area to serve the region's residents.

5. Schools

The Lahaina District is serviced by both private and public schools, which provide education for preschool through high school age children. Public schools in the Lahaina District include the King Kamehameha III Elementary School for children from kindergarten through fifth grade, Princess Nahienaena Elementary School for preschool through fifth grade, the Lahaina Intermediate School for grades six through eight, and Lahainaluna High School for grades nine through twelve. Private schools in the Lahaina District include Sacred Hearts School for grades kindergarten through eight and several preschools.

Potential Impacts and Mitigating Measures: The project is not anticipated to result in any significant impact to police and fire protection, solid waste collection, health care, or schools.

D. INFRASTRUCTURE

1. Roadways

Existing Conditions: The automobile is the primary source of transportation in Lahaina. An extensive roadway system exists in the Lahaina area. Right-of-way widths vary with each roadway. Some roads are paved with curbing and sidewalks while others are comprised of asphaltic concrete pavement with limited curbs.

The project site is located on the mauka side of Mill Street. Access is from the existing cane haul road leading to Waine`e Village. The park's entrance is located approximately 60 feet mauka of the Shaw and Mill Street intersection. The Shaw Street/Honoapiilani Highway intersection is signalized. The average right-of-way width along Shaw Street fronting the property will be approximately 25 feet, with a pavement width of approximately 21 feet.

There will be 50 on-site parking spaces provided by Amfac within the project site. An additional 30 future parking spaces to be developed by the Maui County Department of Parks and Recreation will be located on the makai side of the parking area along the east side of the property (see Figure No. 3).

Potential Impacts and Mitigating Measures: A traffic impact analysis was conducted by Phillip Rowell and Associates and is included in this document as Appendix B. The report concluded that the increase in traffic due to this expansion of an existing recreation facility is expected to have minimal impact on traffic patterns in the area.

2. Wastewater

Existing Conditions: The project site is not connected to the County sewage system.

Potential Impacts and Mitigating Measures: The proposed restrooms will be served by an individual wastewater treatment system (IWS) consisting of a septic tank and leach field which has been approved by the Department of Health in regards to conformance with the State's rules and regulations for wastewater systems. The project will not connect to the County's collection system due to the distance from the proposed facility to the nearest point of connection.

3. Water

Existing Conditions: Lahaina Town's water sources are the Kahana Stream and a water well near Lahainaluna School. The present Lahaina Recreation Center is serviced by a waterline located along Shaw Street. Fire protection for the project site is provided by existing fire hydrants fronting the project site along Shaw Street.

Potential Impacts and Mitigating Measures: The subject site will be served by a ground-water well for irrigation purposes. Well development will conform to the requirements of the Commission on Water Resource Management (CWRM). These

requirements establish standards for well construction as well as pump installation. Well construction will incorporate standards of the CWRM in order to prevent contamination of the underlying aquifer. After the well is constructed, tests will be performed in order to determine the appropriate utilization rates. An assessment of the relationship and potential impacts of the well on the underlying aquifer will be conducted as part of the pump installation permitting requirements.

Impacts to the County's municipal system will be minimal due to the utilization of a separate well for irrigation and since potable water needs will be mainly for restroom facilities. Potable water will be supplied via the Mill Street waterline.

4. Drainage

Existing Conditions: Present and future runoff and soil erosion conditions are documented in the Preliminary Drainage and Erosion Control Report for Waine`e Park by Ronald M. Fukumoto Engineering (see Appendix). The present on-site runoff generated by the park parcel is 8.5 cubic feet per second (cfs). The project site has an existing irrigation ditch running mauka of the property. This ditch intercepts runoff from upstream areas and allows the flows to bypass the park site.

Runoff from the project site flows toward Mill Street. The runoff flows along Mill Street in a northwesterly direction along the street before entering an existing drainage depression located adjacent to the Lahaina Aquatic Center site. During periods of heavy rainfall, the sump allows the runoff to pond before flowing across the highway.

Potential Impacts and Mitigating Measures: There are no on-site drainage improvements included in the park. A two-foot high earth berm will be constructed along the mauka perimeter of the park to divert runoff from entering into the ballfields.

Alterations to the natural on-site drainage pattern will be kept to a minimum. Runoff will sheet flow over the ballfields and park into grassed swales. The park development will reduce the slope of the land to accommodate the ballfields. This reduced slope will slow runoff, allowing more infiltration into the soil. The benefit of increased infiltration, however, is offset by the paved parking lot and walkways. The on-site runoff generated by the park development is calculated to be 8.5 cfs (identical to the 8.5 cfs in the existing conditions). As such, there will be no runoff increase due to the proposed development.

Based on the foregoing, the project is not anticipated to result in any significant impact on downstream properties.

5. Electrical and Telephone Systems

Existing Conditions: Electrical service to the project site is presently provided by Maui Electric Company, Ltd. (MECO) powerlines. Any additional electrical power needs for the project site will be supplied by MECO.

GTE Hawaiian Telephone Company maintains overhead telephone lines that serve the project site.

Potential Impacts and Mitigating Measures: The increase in usage of electrical and telephone systems will be minor.

III. RELATIONSHIP TO GOVERNMENT PLANS, POLICIES, AND CONTROLS

A. HAWAI`I LAND USE LAW

Chapter 205, Hawai`i Revised Statutes, relating to the Land Use Commission, establishes the four major land use districts in which all lands in the State are placed. These districts are designated *Urban, Rural, Agricultural,* and *Conservation*. The project site is within the *Agricultural* District. The proposed improvements are permitted within the *Agricultural* District as open air recreation facilities.

B. GENERAL PLAN OF THE COUNTY OF MAUI

The General Plan of the County of Maui (1991 update) provides long term goals, objectives, and policies directed toward the betterment of living conditions in the County. Addressed are social, environmental, and economic issues that influence future growth in Maui County. The proposed recreation use is consistent with the following General Plan objective and policies:

Objective: To provide high-quality recreation facilities to meet the present and future needs of our residents of all ages and physical abilities.

Policies:

- Maintain and upgrade existing recreation facilities to meet community needs.

Develop multi-purpose recreation facilities (Page No. 13).

C. WEST MAUI COMMUNITY PLAN

Nine community plan regions have been established in Maui County. Each region's growth and development is guided by a Community Plan, which contains objectives

and policies in accordance with the County General Plan. The purpose of the Community Plan is to outline a relatively detailed agenda for carrying out these objectives.

The project site is located within the West Maui Community Plan. The West Maui Community Plan was updated and adopted by ordinance No. 2476 on February 27, 1996. The project site is designated as *Park, Single Family* and *Agricultural* on the County Plan's Land Use Map. The recreation use of the project site is consistent with the following West Maui Community Plan goal, objectives, and policies:

Goal: An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the future needs of the residents and visitors in a manner that provides for the stable social and economic well-being of residents and preservation and enhancement of the region's open spaces and natural environmental resources (Page No. 15).

Objectives and Policy:

•Establish, expand and maintain parks and private open spaces, public facilities, cemeteries, and public shoreline areas within Lahaina town. Major park spaces to be maintained, expanded, or established are...the continued development and expansion of the park at Waine`e into a regional recreation and sports facility (Page No. 20).

D. MAUI COUNTY ZONING

The project site is zoned "Agricultural" District. The proposed recreation use is a permitted use under Section 19.30A.050.B.12, "Parks for public use."

E. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA

The expected consequences of the project and its short-term and long-term effects are discussed in this report, in order to support a finding of no significant impact. To determine whether the project may have a significant impact on the environment, the environmental assessment significance criteria, established by the Department of Health Rules (11-200-12), are used as a basis. The action shall be determined to have significant impacts on the environment if it meets any one of the following criteria:

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

Portions along the mauka side of Honoapiilani Highway corridor are designated in State Site No. 50-50-03-3001, Lahaina Historic District. The proposed project is situated on the mauka side of Mill Street, the boundary of State Site 50-50-05-3001, lying just outside the boundary of the Historic District. Boyd Dixon of the Historic Preservation Division, DLNR, commented in a discussion that since the site had been cultivated in sugarcane for the past century, there was little or no chance of archaeological sites surviving on the property. The proposed park is an extension of the existing Lahaina Recreation Center. The park use is compatible with the surrounding agricultural and park uses. The location of the project is not anticipated to result in any significant impact to scenic views, air quality or noise in the area.

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

Portions of the subject property have been previously utilized for urban and agricultural activities. Over the past ten years, Pioneer Mill has withdrawn from agricultural operations in lands adjacent to the urban areas. The proposed alteration in use will increase beneficial uses of the immediate environment.

3. *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The proposed project concurs with the County of Maui's General Plan and West Maui Community Plan environmental policies, goals and guidelines, which are consistent with the State's environmental policies, goals and guidelines.

4. *Substantially affects the economic or social welfare of the community or state;*

The proposed project will not negatively impact the local economy and employment opportunities, but rather it will have a positive impact by expanding the recreation facilities in West Maui. The project will not negatively impact health care, schools or population counts. The impact on the social welfare of the community will be positive.

5. *Substantially affects public health;*

The proposed project will not negatively impact the health care system of Maui. Short-term construction-related impacts may affect air, noise, traffic and water quality, and mitigation measures will be employed to minimize these impacts. The long-term effects of this project are anticipated to have positive economic, social, and quality of life impacts.

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

The proposed project will not generate employment or population growth. There will be a positive impact on the recreation facilities and will be no negative impact on schools, thereby not causing any negative secondary impacts.

7. *Involves a substantial degradation of environmental quality;*

The proposed project involves converting agricultural lands into a recreation facility with two baseball diamonds, on-site parking and associated landscaped areas. With the incorporation of mitigation measures relative to soil erosion and fugitive dust during construction, the project will have no significant impact on the environmental quality of West Maui.

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

The expansion of the Lahaina Recreation Center will not have a substantial effect on the environment. Amfac has agreed to provide a graded site, with grass, a parking lot, sidewalks and restrooms. The County of Maui will develop additional improvements, including fencing, ballfields, lighting, electronic scoreboards, and an irrigation well and pump systems, totalling approximately $1,000,000. These improvements will be constructed in phases as the funds are appropriated for this project. There are no further commitments beyond these anticipated improvements.

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

The project site has been substantially disturbed. For the past century, the parcel has been in sugarcane production and a portion of the parcel was included in the part of the Waine`e Village that was demolished twelve years ago.

There are no rare, endangered or threatened species of plants at the site. Animal life in the project vicinity similarly reflects the agricultural/urban character of the region. Avifauna typically found Lahaina region includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose.

There are no known significant habitats of rare, endangered or threatened species of flora and fauna at the site.

10. *Detrimentally affects air or water quality or ambient noise levels;*

Short-term construction-related impacts to air or water quality or noise levels will be mitigated through adherence to identified mitigation measures. Over the long term, there will be no significant impacts to air or water quality or to ambient noise levels.

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 designated Zone "C" by the Flood Insurance Rate Map No. 150003 163 C for the South Lahaina region. Zone "C" defines areas of minimal flooding. The proposed project should not be affected by nor have adverse impacts upon its neighbors or downstream properties with regard to flood hazard potential.

12. *Substantially affects scenic vistas and viewplanes identified in county or state plans or studies;*

The site is not a part of a scenic or unique scenic corridor nor does it provide a valuable vantage point to scenic resources. The proposed project will not have negative impacts upon the visual character of the site and its immediate environs.

13. *Requires substantial energy consumption.*

The proposed project will not require substantial energy consumption. Improvements consist of two playing fields with overhead lighting, restrooms, perimeter fencing, an irrigation system, and a parking area.

IV. FINDINGS AND CONCLUSIONS

The proposed recreation expansion and use will not have significant impact upon surrounding areas, significant archaeological or historic sites, employment opportunities, nor local population. Public service needs such as police, medical facilities and schools will not be significantly impacted by the proposed recreation use. Impact upon roadways, water, wastewater, drainage, and other infrastructure systems are not considered significant.

Considering the foregoing, it is concluded that the proposed action will not result in any significant impacts and a Finding of No Significant Impact is warranted.

V. REFERENCES

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

County of Maui, Maui Planning Department, *The General Plan of the County of Maui, 1990 Update.*

County of Maui, Maui Planning Department, *West Maui Community Plan*, 1996.

Federal Emergency Management Agency, National Flood Insurance Program, *Flood Insurance Rate Map*, Maui County, Hawaii, Community Panel Number 150003-0163B, June 1, 1981.

Ronald M. Fukumoto Engineering, *Preliminary Drainage and Erosion Control Report for Waine`e Park*, March 1999.

State of Hawai`i, Department of Business and Economic Development, *Data Book*, 1990.

US Bureau of the Census, *Estimate of the Population of Counties and Demographic Components of Population Change: Annual Time Series, July 1, 1990 to July 1, 1997*, Bulletin CO-97-3, 17 March 1998.

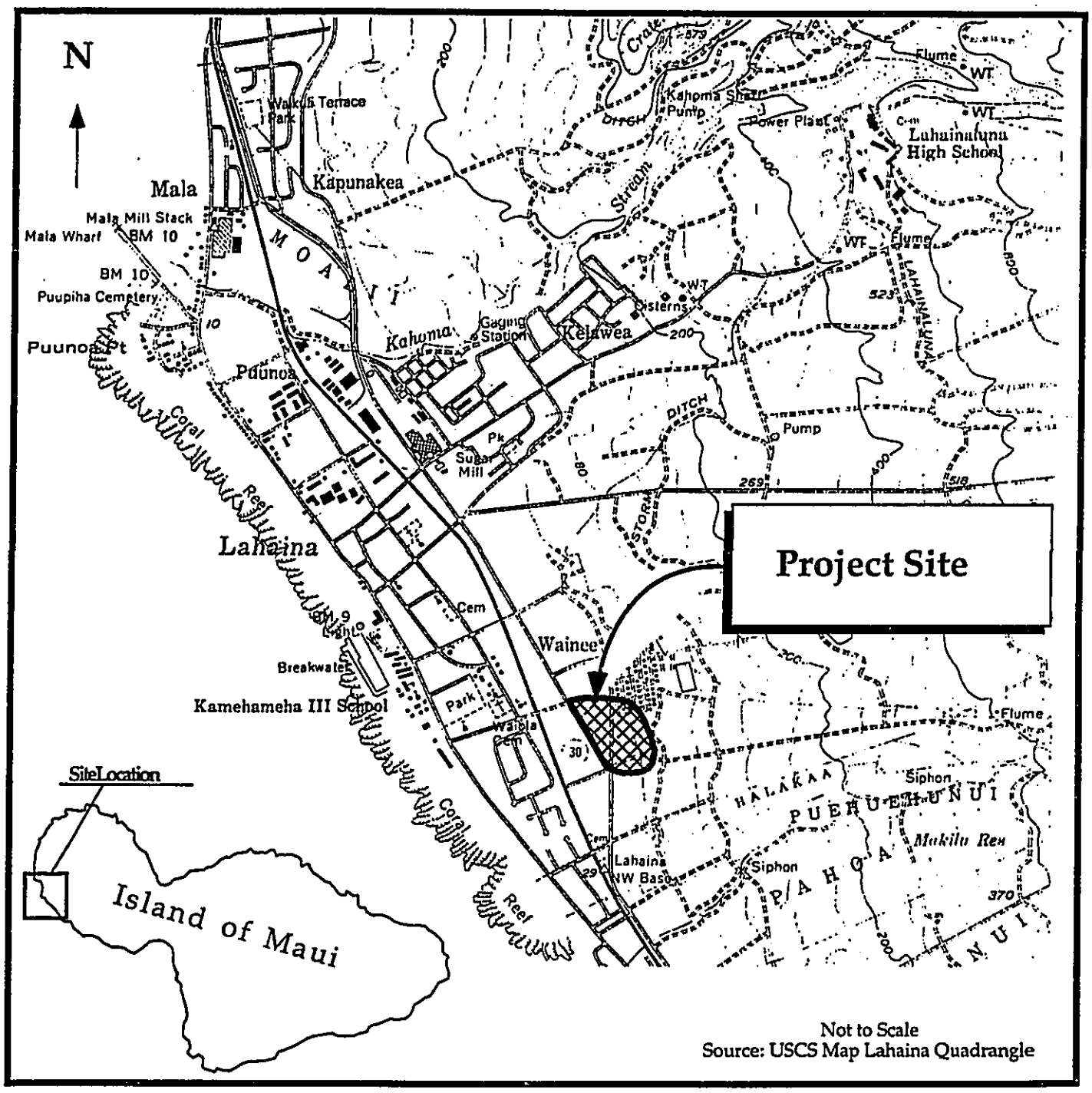
US Department of Agriculture, Soil Conservation Service in Cooperation with the University of Hawai`i, Agricultural Experiment Station, *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawai`i*, 1972.

US Department of Interior, National Park Service, *National Register of Historic Places Registration Form*, April 1994.

University of Hawai`i, Department of Geography, *Atlas of Hawai`i*, Second Edition, 1983.

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

FIGURES



Regional Location Map

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i
TMK 4-6-15: Portion 01

CHRIS HART & PARTNERS

Figure No. 1

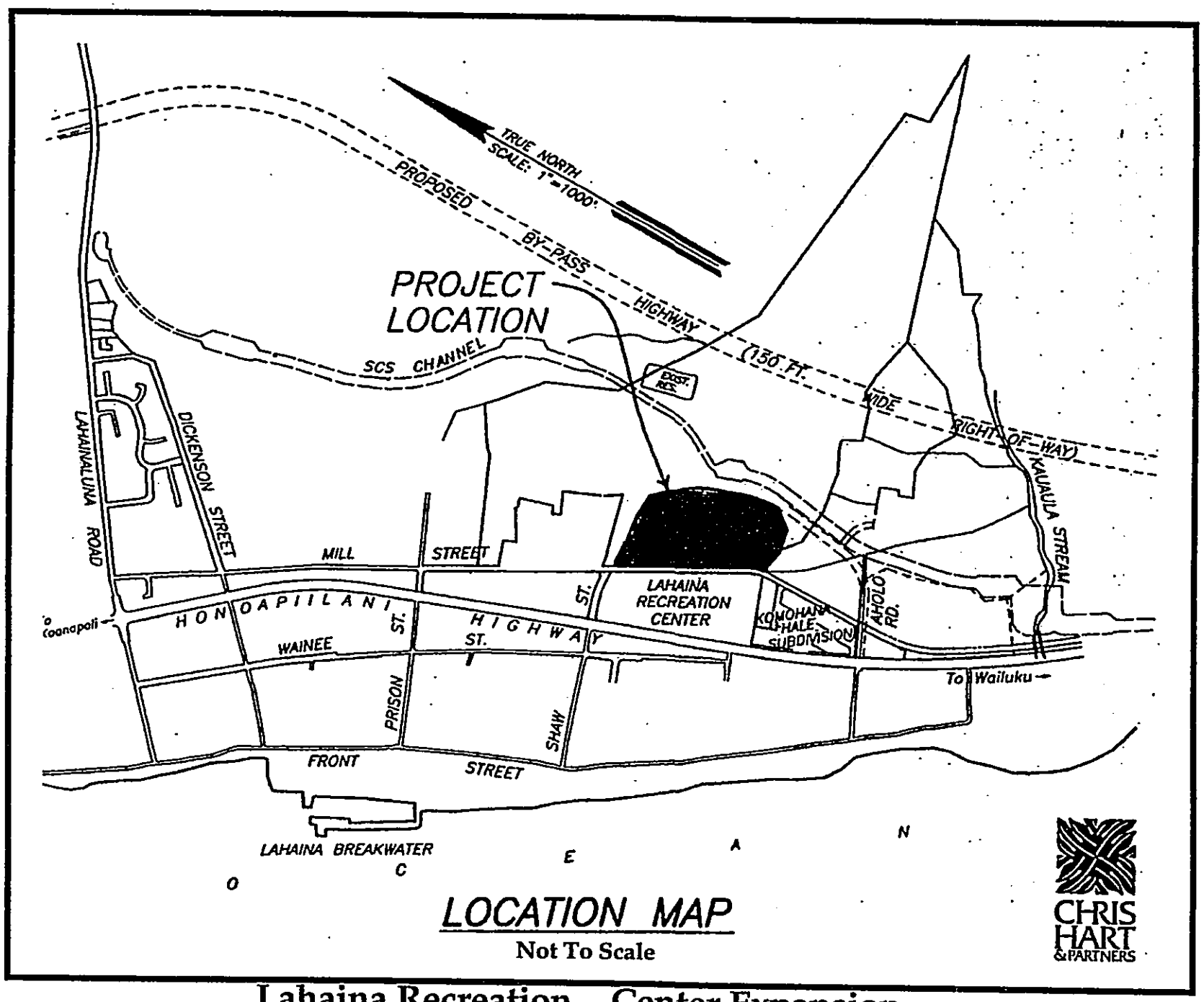
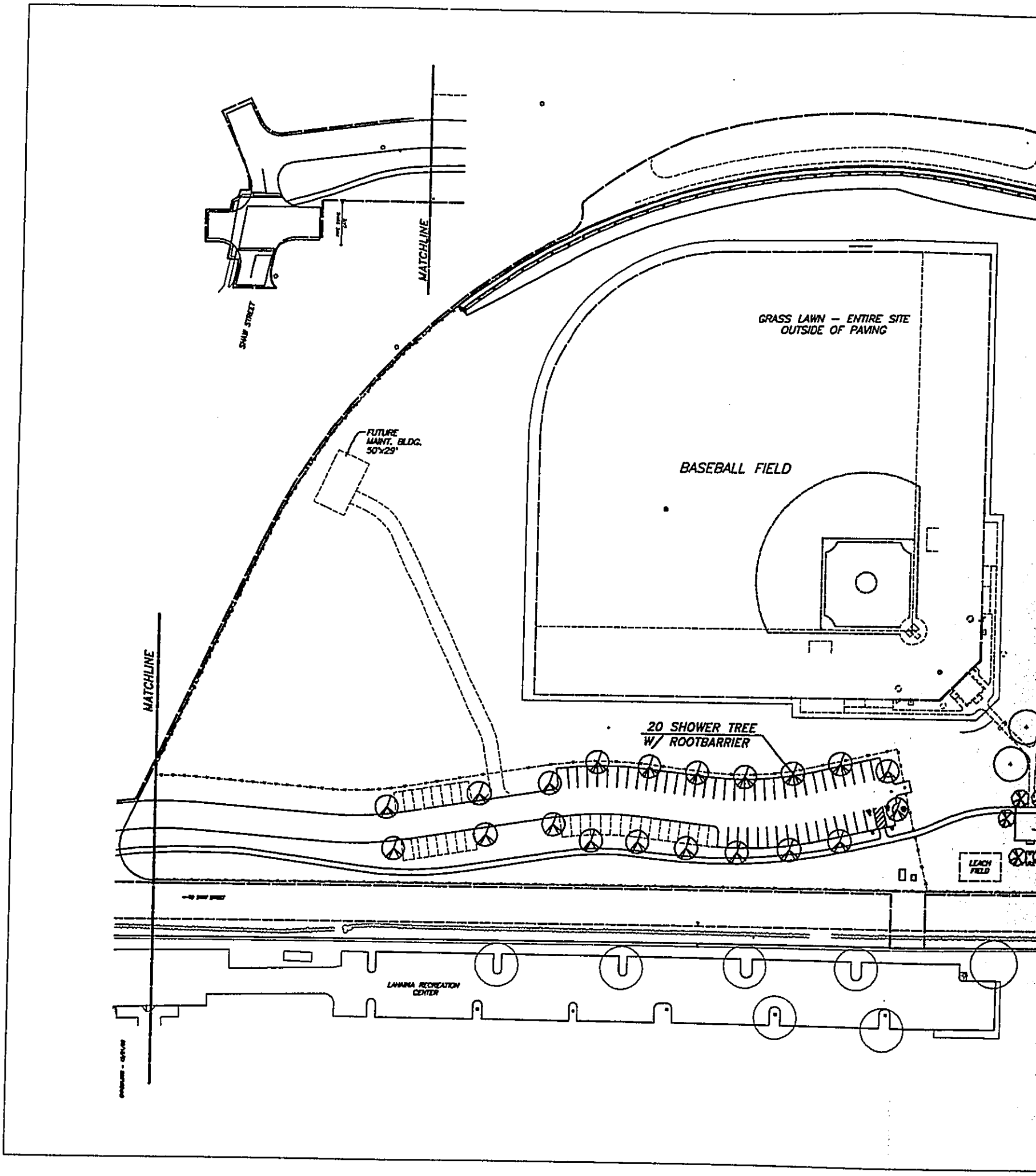
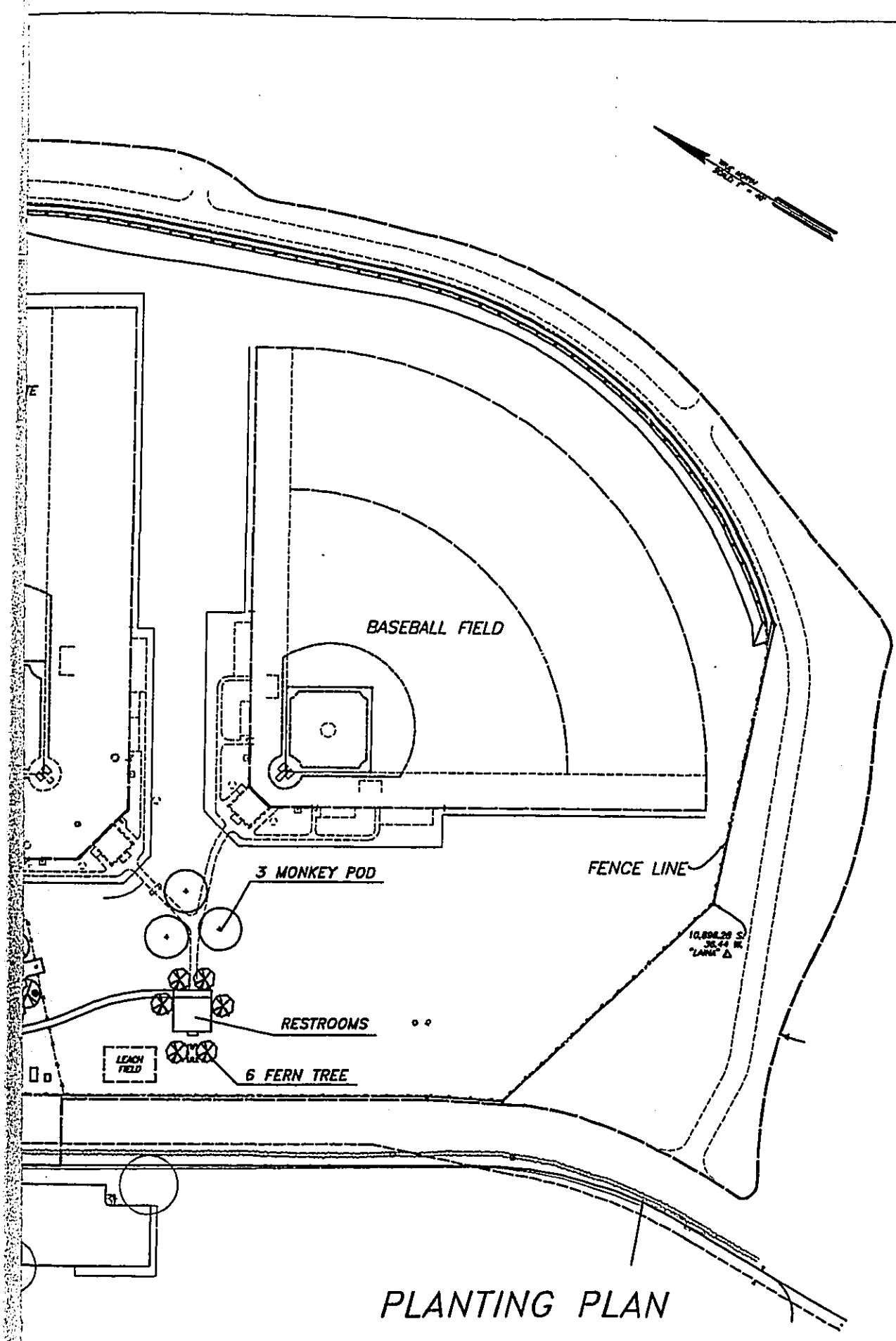


Figure No. 2

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i


MATCHLINE
SHAW STREET
FUTURE
MAINT. BLDG.
30'x29'
GRASS LAWN – ENTIRE SITE
OUTSIDE OF PAVING
BASEBALL FIELD
MATCHLINE
20 SHOWER TREE
W/ ROOTBARRIER
LEACH
FIELD
LAHAINA RECREATION
CENTER



CHRIS HART & PARTNERS

RONALD M. FUKUMOTO ENGINEERING, INC.
1721 WILI PA LOOP, STE. 203
WAILUKU, HAWAII 96793-1613
PHONE: (808) 242-1691
FAX: (808) 244-1834
EMAIL: info@rmfengineering.com

PREPARED FOR:
AMFAC/JMB HAWAII, INC.
2330 KEKAA DRIVE
LAHAINA, HAWAII 96761

LAHAINA RECREATION CENTER EXPANSION
T.M.K.: (2) 4 - 6 - 15 : POR. 1
LAHAINA, MAUI, HAWAII

PLANTING PLAN

WILLIAM MITCHELL
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 0173
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DESIGNED BY: W.M.
DRAWN BY: K.T.
CHECKED BY: W.M.
DATED: APRIL 15, 1989
FILE NO.: CHP2SRLDRG

SHEET
L-2
8 OF 16

Figure No. 3

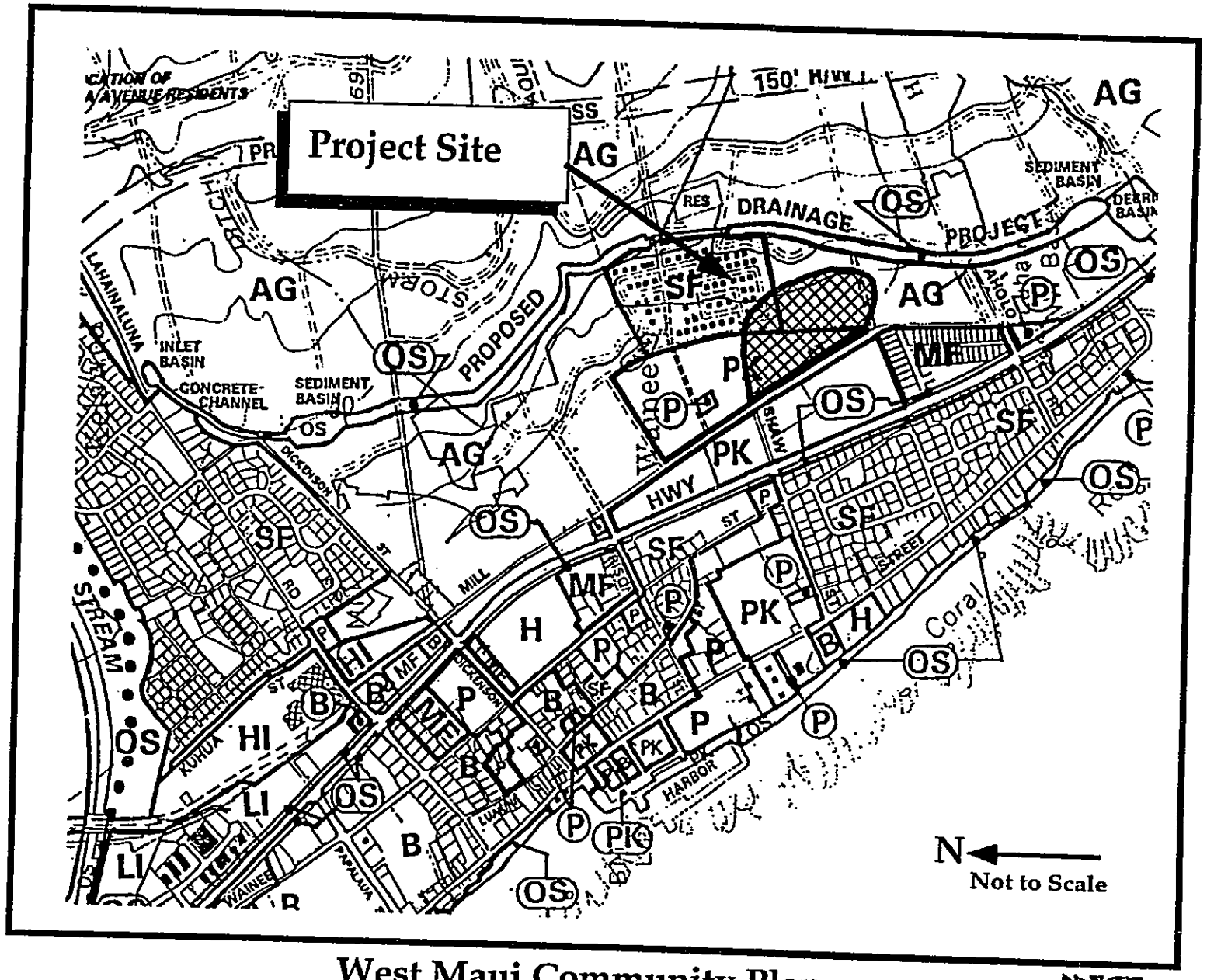
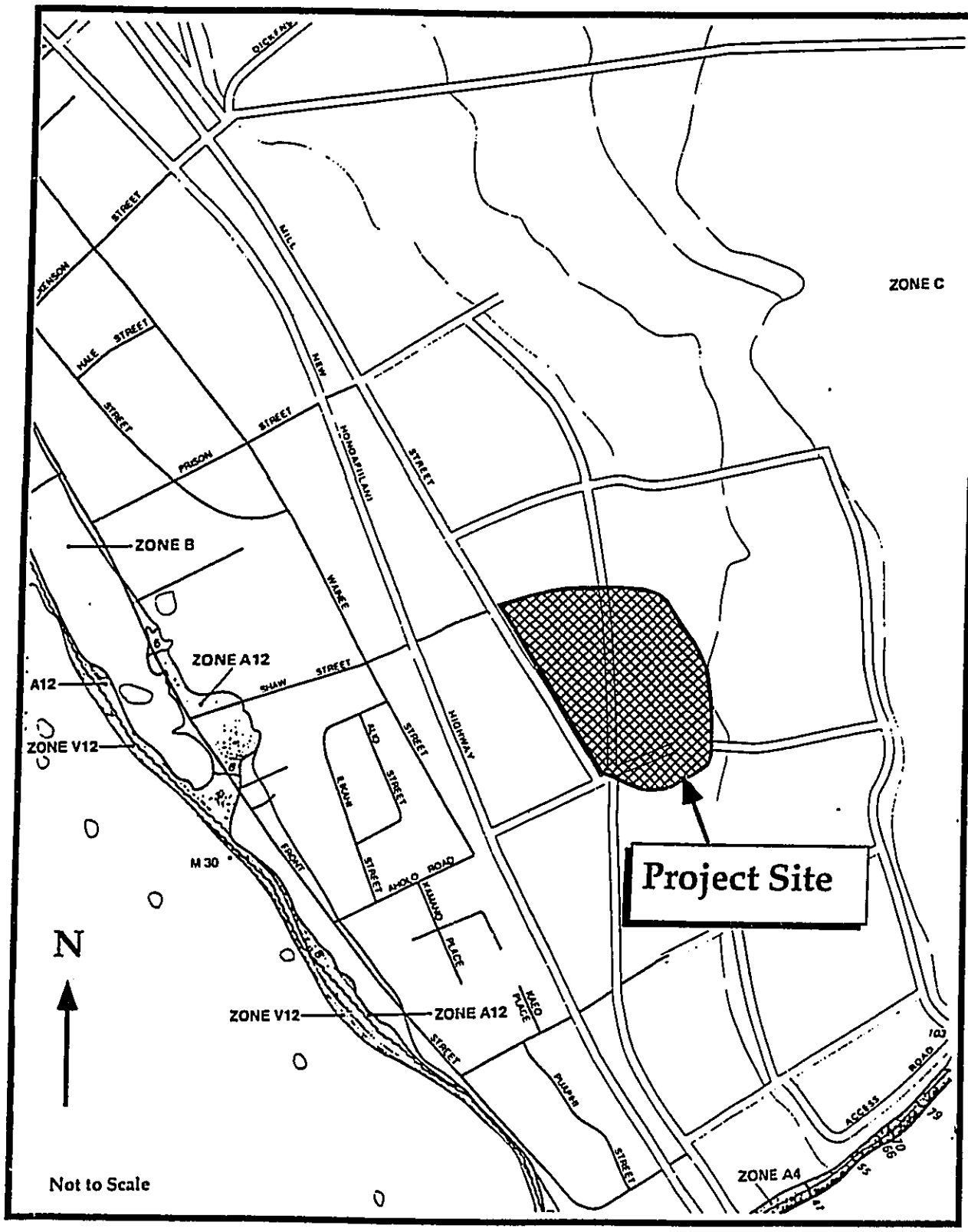


Figure No. 4

West Maui Community Plan
Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i

CHRIS HART & PARTNERS

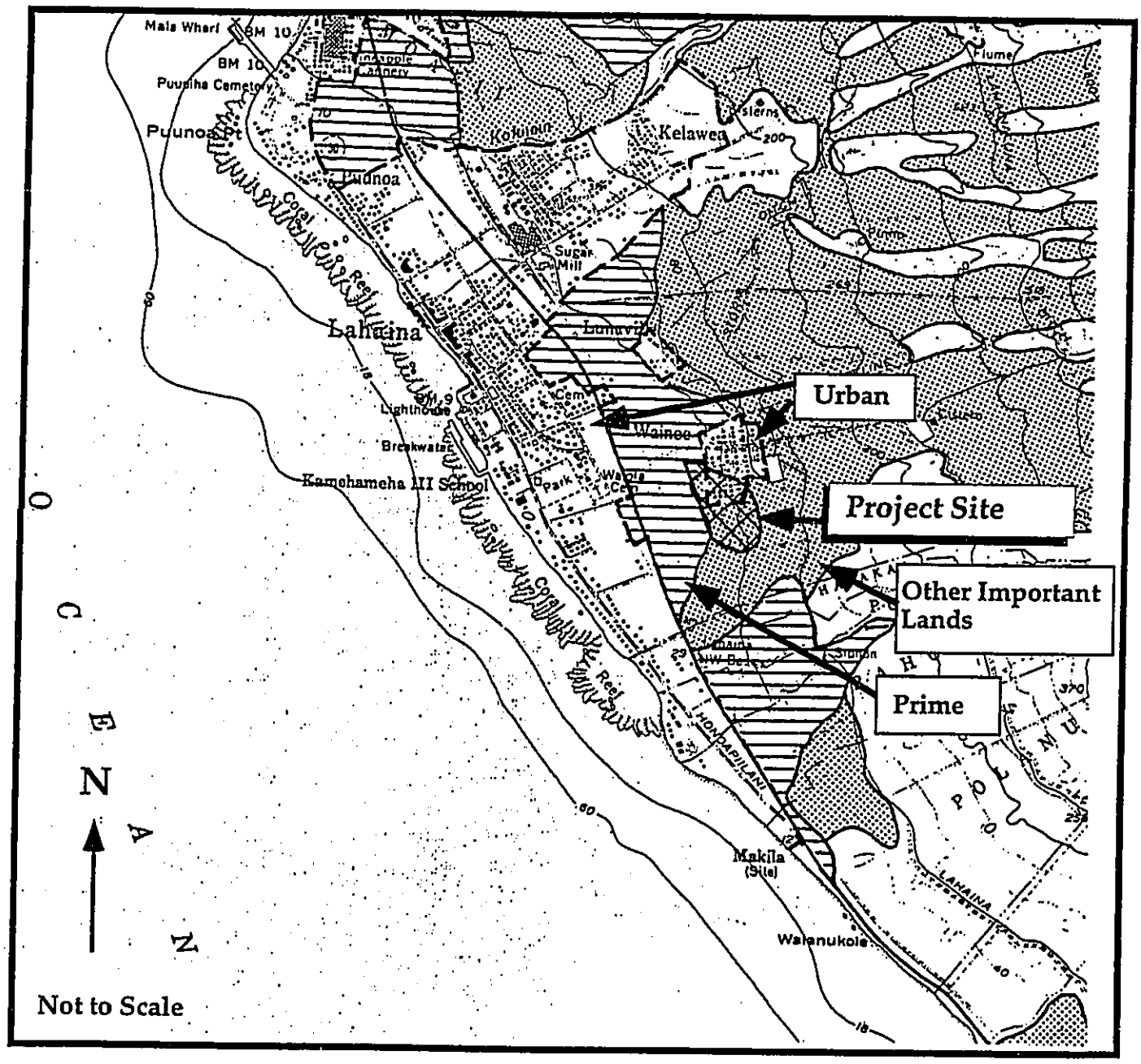


Flood Insurance Rate Map

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i

CHRIS HART & PARTNERS

Figure No. 5



Agricultural Lands of Importance to the State of Hawai`i

Lahaina Recreation Center Expansion
Lahaina, Maui, Hawai`i

CHRIS HART &PARTNERS

Figure No. 6

APPENDICES

APPENDIX A

Preliminary

DRAINAGE AND EROSION CONTROL REPORT
FOR
WAINEE PARK
LAHAINA, MAUI, HAWAII
TMK: (2) 4-6-15: PORTION OF 1

Prepared for

Chris Hart & Partners
1955 Main Street
Wailuku, Hawaii 96793

Owner

Department of Parks and Recreation
County of Maui
1580 Kaahumanu Avenue
Wailuku, Hawaii 96793

March 1999

Ronald M. Fukumoto Engineering, Inc.
1721 Wili Pa Loop, Suite 203
Wailuku, Hawaii 96793

TABLE OF CONTENTS

I. Purpose 1

II. Project Description and Location 1

III. Drainage

A. Existing Conditions 1
B. Developed Conditions ..... 1 - 2

IV. Conclusion 2

V. Soil Erosion Control Measures 2

VI. Reference 3

List of Figures

Figure 1 – Location Map 4
Figure 2 – Preliminary Grading Plan 5

Appendices

Appendix A – Drainage Computations ..... A-1 thru A-2
Appendix B – Soil Erosion Control Plan ..... B-1 thru B-2

I. PURPOSE

The purpose of this report is to present hydrologic and hydraulic design computations for the Wainee Park development. This report will also review the potential movement of soil in accordance with Chapter 20.08, Soil Erosion and Sedimentation Control of the Maui County Code.

II. PROJECT DESCRIPTION & LOCATION

The Wainee Park development is located mauka of the Lahaina Recreation Center, being a portion of TMK: (2) 4-6-15: parcel 1 in Lahaina on the island of Maui. The development site is bound by Mill Street on the west, Wainee Village on the northeast, and cane fields along the remainder of its sides. (See Figure 1 – Location Map.) Access to the park is from the existing cane haul road leading to Wainee Village. The park's entrance is located approximately 60 feet mauka of the Shaw and Mill Street intersection.

The park site is 13.712 acres. The site will be developed with a Sr. Little league/Pony league field, Little league/softball field, restroom facility and 50 paved parking stalls including 2 accessible stalls. Offsite improvement include signage and pavement markings at the Mill Street and Shaw Street intersection, pedestrian crosswalks and an asphaltic concrete sidewalk leading into the park site.

III. DRAINAGE

A. Existing Conditions

The proposed project site is presently used for sugar cane cultivation. The existing ground within the park site slopes from an elevation of about 50 feet above mean sea level to an elevation of 20 feet at the proposed park entrance. The average ground slope is about 2.5 percent.

The project site is located 150 to 250 feet makai of an existing irrigation ditch. This ditch intercepts runoff from the upstream areas and allows the flows to bypass the park site. (See Figure 1 – Location Map.)

Runoff from the project site flows towards Mill Street. The runoff flows along Mill Street in a northwesterly direction along Mill Street before entering an existing drainage depression which is located adjacent to the Lahaina Aquatic Center site. The sump allows the runoff to pond before flowing across the highway during periods of heavy rainfall.

According to the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*, the on-site soil consists of Ewa silty clay loam (EaA) and Wainee very stony silty clay (WxB). The soil survey describes these soils as having slow/medium runoff and a slight erosion hazard.

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (panel no. 15003-0163B) does not identify any flood zones affecting the proposed park site.

B. Developed Conditions

There are no on-site drainage improvements included in the park. A 2-foot high earth berm will be constructed along the mauka perimeter of the park to divert runoff from entering into the ballfields.

Alterations to the natural on-site drainage pattern will be kept to a minimum. Runoff will sheet flow over the ballfields and park into grassed swales. The park development will reduce the slope of the land to accommodate the ballfields. This reduced slope will slow runoff allowing more infiltration into the soil. The benefit of the increased infiltration, however, is offset by the paved parking lot and walkways. The on-site surface runoff generated by the park development is 8.5 cfs, no runoff increase due to the development. The natural drainage patterns of the site will remain. During periods of heavy rainfall, the runoff will flow along Mill Street before entering the existing sump and eventually discharging across Honoapiilani Highway.

IV. CONCLUSION

Development of the project will not result in any significant increase in peak flow rates and runoff volumes. The addition of impervious areas such as roofs, parking lots, and other paved areas is minimal. The flat graded and manicured lawns developed for the ball fields will encourage infiltration by reducing runoff flow velocities. Therefore, there will be no adverse effects on the adjacent and downstream properties resulting from the development of this project.

V. SOIL EROSION CONTROL MEASURES

The Wainee Park development consists of about 13.7 acres. The project grading area, however, encompasses about 15.5 acres. This report evaluates the potential of soil loss based on the 15.5-acre grading area.

The following is a summary of the soil loss computations based on the Universal Soil Loss Equation. (See Appendix B - Soil Erosion Control Plan.)

Area:	15.5 acres
Uncontrolled Erosion Rate:	10 tons/acre/year
Allowable Erosion Rate:	460 tons/acre/year
Severity Number:	1,085
Allowable Severity Number:	50,000

Conclusion:

The figures above indicate that soil loss is within the allowable limits. The uncontrolled erosion rate 10 (tons/acre/year) is lower than the allowable erosion rate (460 tons/acre/year) and the severity number (1,085) is lower than the allowable severity number (50,000).

Normal erosion control measures, including diversion ditches and silt screens will prevent excessive soil loss during construction.

Erosion control measures during construction shall also include limiting the area of clearing and grubbing, sprinkling for dust control, installing and maintaining dust screens, minimizing the construction period, and constructing or installing permanent erosion control measures as soon as possible.

VI. REFERENCES

1. R. M. Towill Corporation, ***Drainage Master Plan for the County of Maui***, Honolulu, Hawaii, October 1971.

2. County of Maui, "Title MC-15, Department of Public Works and Waste Management, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui", Wailuku, Hawaii, November 1995.

3. City and County of Honolulu, Department of Public Works, Division of Engineering, ***Storm Drainage Standards***, Honolulu, Hawaii, May 1988.

4. Federal Emergency Management Agency, National Flood Insurance Program, ***FIRM, Flood Insurance Rate Map***, Maui County, Hawaii, Community-Panel Number 15003-0163B, June 1, 1981.

5. U. S. Department of Agriculture, Soil Conservation Service, ***Erosion and Sediment Control Guide for Hawaii***, Honolulu, Hawaii, March 1981.

6. U. S. Department of Agriculture, Soil Conservation Service, ***Rainfall-Frequency Atlas of the Hawaiian Islands***, Honolulu, Hawaii, 1962.

7. U. S. Department of Agriculture, Soil Conservation Service, ***Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, Lanai, State of Hawaii***, Washington, D.C., August 1972.

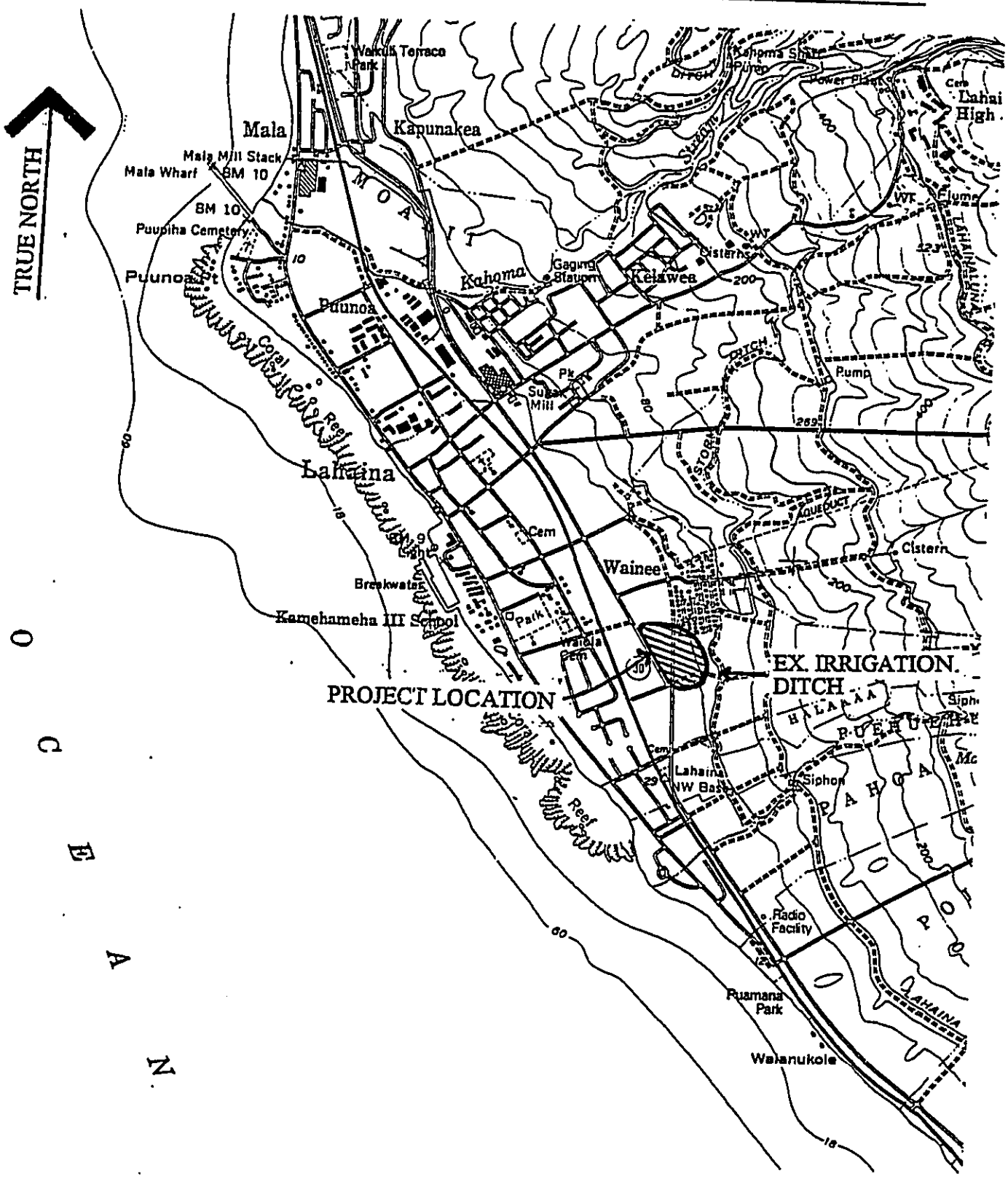


FIGURE 1
Location Map (USGS MAP)

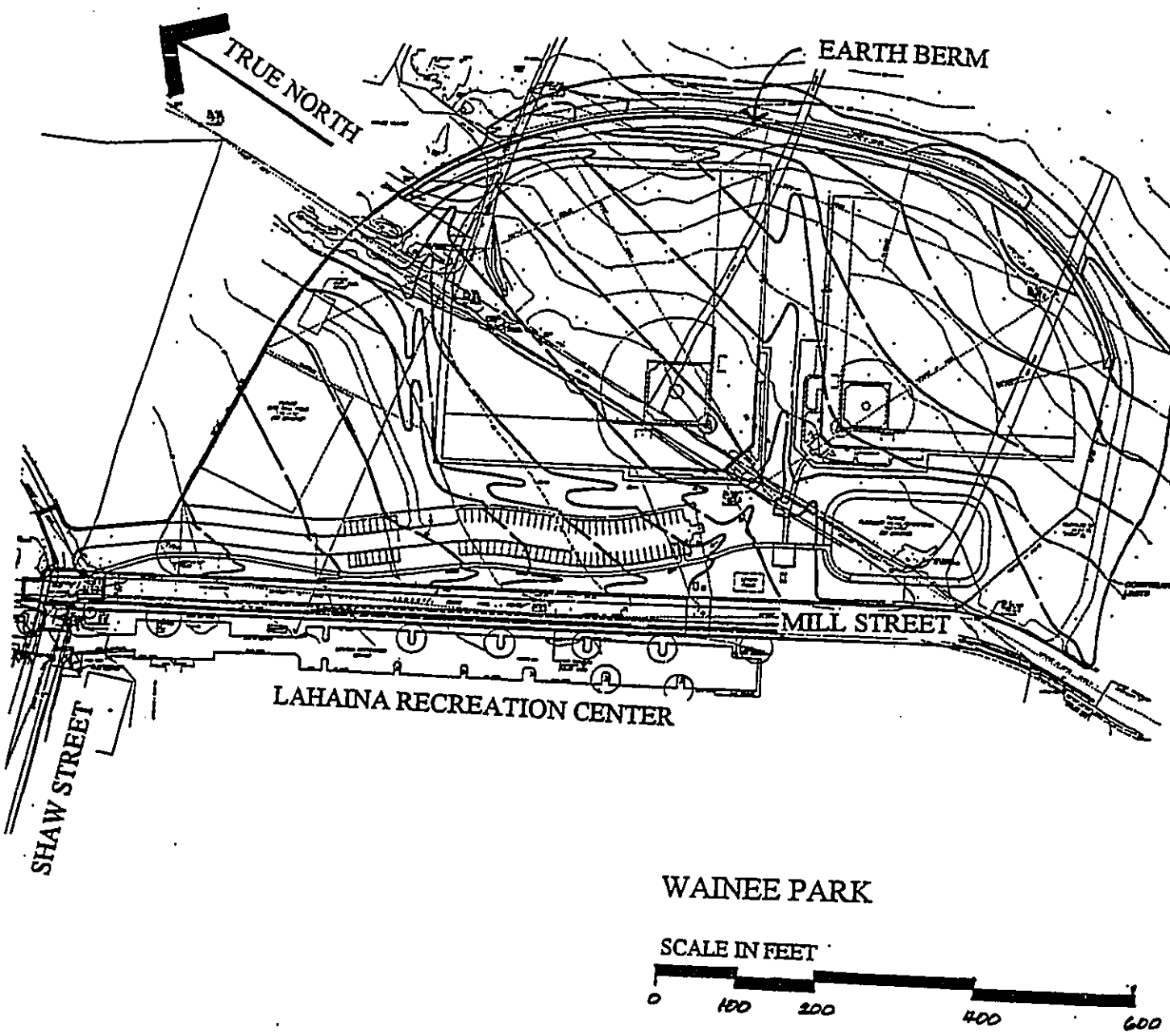


FIGURE 2
Grading Plan

APPENDIX A

DRAINAGE COMPUTATIONS

PURPOSE: To calculate the existing and developed on-site surface runoff generated by the Wainee Park development. The runoff computations are based on the rational method using a 10 year, 1-hour rainfall recurrence interval.

1. EXISTING CONDITIONS:

A. RUNOFF COEFFICIENT

From Table 1, Ref. 1:

Infiltration:	Slow/Medium	0.11
Relief:	Flat (2.5%)	0.00
Vegetal Cover:	High	0.00
Development Type:	Agricultural	0.15
	C =	0.26

B. *EXISTING RUNOFF*

Determine 10-year recurrence interval runoff for existing conditions.

Drainage Area = 13.7 acres

Rainfall (I_{10}) = 2.0 inches (From Plate III-14, Ref. 1)

Time of Concentration (T_c) = 45 minutes

Rainfall Intensity (i_{10}) = 2.4 inches/hour (From Plate 4, Ref. 1)

Q_{10} = CiA = 0.26 x 2.4 x 13.7= 8.5 cfs

2. DEVELOPED CONDITIONS:

A. RUNOFF COEFFICIENT

Infiltration:	Slow/Medium	0.11
Relief:	Flat (2.0%)	0.00
Vegetal Cover:	High	0.00
Development Type:	Park	0.15
	C =	0.26

B. DEVELOPED RUNOFF

Determine 10-year recurrence interval runoff for developed conditions.

Drainage Area = 13.7 acres

Rainfall (I_{10}) = 2.0 inches (From Plate III-14, Ref. 1)

Time of Concentration (T_c) = 43 minutes

Rainfall Intensity (i_{10}) = 2.4 inches/hour (From Plate 4, Ref. 1)

$Q_{10} = CiA = 0.26 \times 2.4 \times 13.7 = 8.5$ cfs

3. INCREASE DUE TO DEVELOPMENT

No runoff increase due to development.

8.5 cfs – 8.5 cfs = 0 cfs

APPENDIX B

SOIL EROSION CONTROL MEASURES

1. SITE CONDITIONS DURING CONSTRUCTION:

The project limits will be cleared, grubbed, and graded in one increment. Exposed areas will be grassed or paved immediately after grading work.

2. UNCONTROLLED EROSION RATE:

Erosion rate as set forth by the Maui County Code:

$E = R \times K \times LS \times C \times P$

Where:

E	=	Uncontrolled Erosion Rate (Soil Loss) in tons/acre/year
R	=	Rainfall Factor = 170 *tons/acre/year*
K	=	Soil Erodibility Factor (Ewa/Wainee) = 0.14
L	=	Slope Length = 1365 feet
S	=	Slope Gradient = 2.0%
LS	=	Topographic Factor = 0.44
C	=	Cover Factor (to be determined if necessary) Use bare soil factor = 1.0
P	=	Control Factor (to be determined if necessary) Use non-agricultural land = 1.0
E	=	170 tons/acre/year x 0.14 x 0.44 x 1.0 x 1.0
	=	10 tons/acre/year

3. ALLOWABLE EROSION RATE:

Coastal Water Hazard (D) = 1

Downstream Hazard (F) = 4

Duration of Site Work (T) = ½ year

Maximum Allowable Construction Area x Erosion Rate = 7,143 tons/year

Project Construction Area (A) = 15.5 acres

Allowable Erosion Rate: $\frac{7,143 \text{ tons/year}}{15.5 \text{ acres}} = 460 \text{ tons/acre/year}$

4. REDUCTION IN EROSION RATE:

$$\frac{\text{Allowable Erosion Rate}}{\text{Uncontrolled Erosion Rate}} = \frac{460 \text{ tons/acre/year}}{10 \text{ tons/acre/year}} = 46 > 1.0$$

Therefore, no reduction in erosion is required.

5. SEVERITY NUMBER (H) = (2 F T + 3 D) A E

H = Severity Number

F = Downstream Hazard = 1

D = Coastal Water Hazard = 4

T = Duration of Site Work (years) = ½

A = Project Construction Area (acres) = 15.5

E = Uncontrolled Erosion Rate (tons/acre/year) = 10

H = (2 x 4 x ½ + 3 x 1) x 15.5 x 10 = 1085 < 50,000

6. CONCLUSION

Normal construction erosion control measures are sufficient for this project with no excessive soil loss occuring.

APPENDIX B

Traffic Impact Assessment for
Proposed Expansion of Lahaina Recreation Center
in Lahaina, Maui, Hawaii
October 25, 2000
Revised October 25, 2000

Project Location and Description of Proposed Project

The proposed project is the expansion of the Lahaina Recreation Center in the Lahaina area of Maui. The project is located east of the existing recreational center, which is east of Honoapiilani Highway. Access to the site is via Shaw Street.

The project is described as follows:

1. Two baseball fields will be constructed to replace two fields currently located in Malu o Lele Park, which is at the corner of Front Street and Shaw Street in Lahaina.

2. Approximately 50 parking spaces will be constructed for the two new baseball fields.

3. The total area of the expansion is 15.5 acres. However, all of this area will not be utilized.

Purpose and Objectives of Study

1. Identify and document the traffic related impacts of the proposed expansion.

2. Determine if any traffic related improvements are required to provide adequate access to and egress from the project site.

Methodology

1. Perform a reconnaissance for the study area to determine existing roadway conditions, including lane configurations and right-of-way controls.

2. Obtain afternoon peak hour traffic counts at the intersection of Honoapiilani Highway at Shaw Street.

3. Estimate the daily and peak hour traffic that the proposed project will generate.

4. Perform a level-of-service analysis of existing traffic conditions and existing plus project conditions at the intersection of Honoapiilani Highway at Shaw Street to quantify the impacts of the project

Background (Existing) Traffic Conditions

In the vicinity of the propose project, Honoapiilani Highway is a two-lane State highway with one lane in each direction. The intersection with Shaw Street is signalized and there are separate left turn lanes for traffic turning onto Shaw Street. Left turn phasing in protected-permissive.

Shaw Street is a two-lane, two-way local street.

Because of the project schedule and limited time available for this study, it was not possible to obtain traffic counts for the intersections of Honoapiilani Highway at Shaw Street for a time period when the facilities of the park were fully used. Therefore, worse-case background peak hour traffic volumes were estimated from

annual traffic counts performed by Hawaii Department of Transportation, *Maui Long Range Transportation Plan* performed by Kaku & Associates, and *A Traffic Analysis for the Lahaina Recreation Center*, also performed by Kaku & Associates. The resulting estimate of worse-case traffic volumes are shown in Attachment A.

A level-of-service analysis was performed for existing conditions. The level-of-service analysis concluded that the intersection operates at Level-of-Service C with delays to the westbound to southbound left turns.

Traffic Characteristics of Proposed Project

Trip Generation

The amount of traffic that a project will generate is typically estimated using trip generation rates and procedures described in *Trip Generation*[1]. However, there are no rates for the type of recreational facility proposed. The amount of traffic that the project will generate was therefore estimated using the following assumptions:

1. There will be 12 players per team,
2. There will be 2 coaches per team,
3. There will be 4 officials per game,
4. All traffic for a game would arrive within one hour before the game or depart within one hour after the game.
5. The number of players, coaches, or officials per vehicle will be one, and
6. 25% of the trips will be drop-offs.

Using the assumptions listed above, the number of trips per game was estimated as follows:

Inbound Trips = 2 x (players + coaches) + officials = 2 x (12 + 2) + 4 = 32

Outbound Trips = 0.25 x Inbound Trips = 0.25 x 32 = 8

To represent a worse-case condition, it was further assumed that both baseball fields would be used for two games each and that the overlapping traffic for both fields would occur during the peak hour of traffic on the adjacent street.

Using these assumptions, it was determined that 80 inbound and 80 inbound trips during the peak hour would represent a worse-case condition.

Traffic Projections

Project related trips were distributed and assigned based on available approach and departure routes to and from the project and information provided in the *Traffic Study for Lahaina Recreation Center.* Calculation of the traffic projections is shown in Attachment A.

---

[1] Institute of Transportation Engineers, *Trip Generation*, Washington, D.C., 1997

Traffic Impacts of Proposed Project

The impact of the proposed project was determined by calculating the change in level-of-service analysis for existing and existing plus project conditions. A summary of the level-of-service analysis and the level-of-service worksheets are presented as Attachment B.

Conclusions and Recommendations

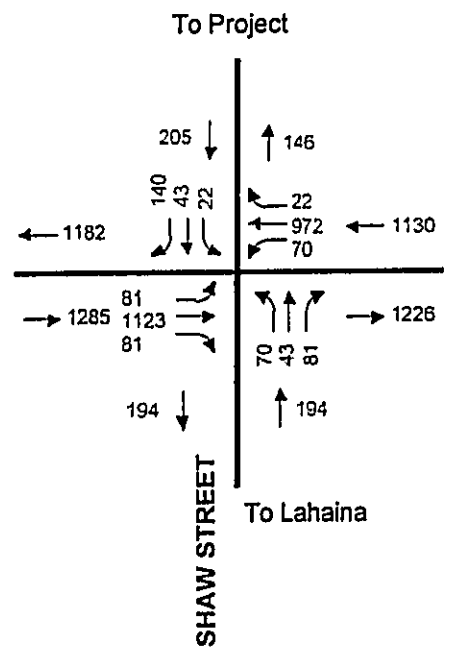
The conclusion of the impact analysis are:

1. Overall, the level-of-service of the intersection of Honoapiilani Highway at Shaw Street will be C without and with the project. Because the Level-of-Service is C with the project, no mitigation measures are recommended.

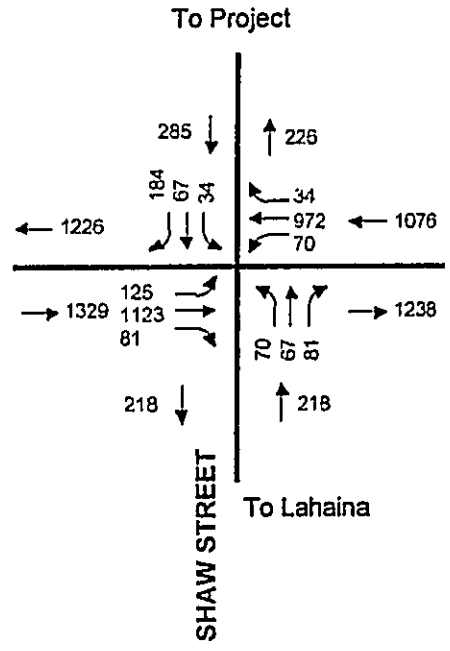
2. There is a change in the Level-of-Service from D to F for the northbound left and through movement. This is because traffic is being added to a movement that must wait for the traffic signal to go through the eastbound and westbound through movement, which is a long phase (78 seconds).

Attachment A
Traffic Projection Worksheet

No.	Approach.	Mvt.	Estimated 2000 Trips	Project Trips	Estimated Trips
1	North	Rt	140	44	184
2		Th	43	24	67
3		Lt	22	12	34
4	East	Rt	22	12	34
5		Th	972	0	972
6		Lt	70	0	70
7	South	Rt	81	0	81
8		Th	43	24	67
9		Lt	70	0	70
10	West	Rt	81	0	81
11		Th	1123	0	1123
12		Lt	81	44	125
TOTAL			2748	160	2908



WITHOUT PROJECT



WITH PROJECT

Attachment B
Results of Level-of-Service Analysis

Intersection and Movement	Background			Background Plus Project			Changes	
	V/C[2]	Delay[3]	LOS[4]	V/C	Delay	LOS	V/C	Delay
Honoapiilani Highway at Shaw Street	0.982	19.4	C	1.041	22.6	C	0.059	3.2
Eastbound Left	0.290	2.4	A	0.448	3.1	A	0.158	0.7
Eastbound Thru & Right	1.035	22.8	C	1.034	22.7	C	-0.001	-0.1
Westbound Left	0.517	8.9	B	0.517	8.9	B	0.000	0.0
Westbound Thru & Left	0.993	13.5	B	1.008	16.6	C	0.015	3.1
Northbound Left & Thru	0.597	38.4	D	0.919	69.1	F	0.322	30.7
Northbound Right	0.194	32.8	D	0.194	32.8	D	0.000	0.0
Southbound Left & Thru	0.299	33.5	D	0.583	38.3	D	0.284	4.8
Southbound Right	0.131	27.1	D	0.270	28.2	D	0.139	1.1

NOTES:
1. Peak hour conditions analyzed are "worst-case" conditions, which is the sum of the peak hour of the adjacent street plus the peak hour of the generator.
2. V/C denotes ratio of volume to capacity.
3. Delay is in seconds per vehicle.
4. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay.
5. Volume to capacity ratios are not calculated for unsignalized intersections.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

Attachment B
Results of Level-of-Service Analysis

Intersection and Movement	Background			Background Plus Project			Changes	
	V/C[2]	Delay[3]	LOS[4]	V/C	Delay	LOS	V/C	Delay
Honoapiilani Highway at Shaw Street	0.982	19.4	C	1.041	22.6	C	0.059	3.2
Eastbound Left	0.290	2.4	A	0.448	3.1	A	0.158	0.7
Eastbound Thru & Right	1.035	22.8	C	1.034	22.7	C	-0.001	-0.1
Westbound Left	0.517	8.9	B	0.517	8.9	B	0.000	0.0
Westbound Thru & Left	0.993	13.5	B	1.008	16.6	C	0.015	3.1
Northbound Left & Thru	0.597	38.4	D	0.919	69.1	F	0.322	30.7
Northbound Right	0.194	32.8	D	0.194	32.8	D	0.000	0.0
Southbound Left & Thru	0.299	33.5	D	0.583	38.3	D	0.284	4.8
Southbound Right	0.131	27.1	D	0.270	28.2	D	0.139	1.1

NOTES:
1. Peak hour conditions analyzed are "worst-case" conditions, which is the sum of the peak hour of the adjacent street plus the peak hour of the generator.
2. V/C denotes ratio of volume to capacity.
3. Delay is in seconds per vehicle.
4. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay.
5. Volume to capacity ratios are not calculated for unsignalized intersections.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 10-25-2000
Phillip Rowell And Associates

Streets: (E-W) Honoapiilani HighWAY (N-S) Shaw Street
Analyst: PJR File Name: CASE1PM.HC9
Area Type: CBD 10-19-0 PM Peak
Comment: 2000 background Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	1	0	> 1	1
Volumes	81	1123	81	70	972	22	70	43	81	22	43	140
Lane W (ft)	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vols			40			20			40			100
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*	*	*		NB Left	*			
Thru		*	*		Thru	*			
Right		*	*		Right	*			
Peds					Peds				
WB Left	*		*		SB Left	*			
Thru			*		Thru	*			
Right			*		Right	*			
Peds					Peds				
NB Right					EB Right				
SB Right		*			WB Right				
Green	4.0A	12.0P	78.0P		Green	20.0A			
Yellow/AR	0.0	0.0	3.0		Yellow/AR	3.0			

Cycle Length: 120 secs Phase combination order: #1 #2 #3 #5

Intersection Performance Summary

Lane Group:		Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	310	1593	0.290	0.783	2.4	A	21.5	C
	TR	1251	1668	1.035	0.750	22.8	C		
WB	L	151	1593	0.517	0.683	8.9	B	13.2	B
	TR	1089	1676	0.993	0.650	13.5	B		
NB	LT	211	1266	0.597	0.167	38.4	D	36.9	D
	R	238	1425	0.194	0.167	32.8	D		
SB	LT	241	1443	0.299	0.167	33.5	D	31.1	D
	R	344	1425	0.131	0.242	27.1	D		

Intersection Delay = 19.4 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.982

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4g 10-25-2000
Phillip Rowell And Associates

Streets: (E-W) Honoapiilani HighWAY (N-S) Shaw Street
Analyst: PJR File Name: CASE2PM.HC9
Area Type: CBD 10-19-0 PM Peak
Comment: 2000 Plus Project Conditions

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	0	> 1	1	0	> 1	1
Volumes	125	1123	81	70	972	34	70	77	81	34	67	184
Lane W (ft)	12.0	12.0		12.0	12.0			12.0	12.0		12.0	12.0
RTOR Vols			40			20			40			100
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*	*	*		NB Left	*			
Thru		*	*		Thru	*			
Right		*	*		Right	*			
Peds					Peds				
WB Left	*		*		SB Left	*			
Thru			*		Thru	*			
Right			*		Right	*			
Peds					Peds				
NB Right					EB Right				
SB Right		*			WB Right				
Green	4.0A	12.0P	78.0P		Green	20.0A			
Yellow/AR	0.0	0.0	3.0		Yellow/AR	3.0			

Cycle Length: 120 secs Phase combination order: #1 #2 #3 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	310	1593	0.448	0.783	3.1	A	20.8	C
	TR	1251	1668	1.034	0.750	22.7	C		
WB	L	151	1593	0.517	0.683	8.9	B	16.1	C
	TR	1087	1673	1.008	0.650	16.6	C		
NB	LT	178	1071	0.919	0.167	69.1	F	61.1	F
	R	238	1425	0.194	0.167	32.8	D		
SB	LT	192	1152	0.583	0.167	38.3	D	33.7	D
	R	344	1425	0.270	0.242	28.2	D		

Intersection Delay = 22.6 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 1.041

APPENDIX C

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

August 25, 1999

Mr. Floyd S. Miyazono, Director
Department of Parks and Recreation
County of Maui
1580-C Kaahumanu Avenue
Wailuku, Hawaii 96793

Dear Mr. Miyazono:

Subject: Draft Environmental Assessment for the Lahaina Recreational Center Expansion, Maui

Thank you for the opportunity to review the subject document. We have the following questions and comments.

1. Please describe why the proposed restrooms will not be connected to the County wastewater system. Please consult with the County Department of Public Works and Waste Management and the State Department of Health regarding this issue.

2. Activities that will be held at the new facilities, such as baseball games, will generate significant levels of vehicular traffic. Please consult with the State Department of Transportation to determine whether a traffic impact study would be required for this project.

3. Please describe what specific mitigation measures will be applied to minimize spillover, glare and other lighting impacts? Please consider designing the lighting using the Department of Land and Natural Resources' guidelines entitled The Newell's Shearwater Light Attraction Problem, A Guide for Architects, Planners, and Resort Managers to reduce lighting impacts.

4. Please fully describe the impacts from the irrigation water well development project. Please refer to applicable parts of the attached "Guidelines for Assessing Water Well Development Projects."

5. Please consult with agencies, citizen groups and individuals who may be affected by this project. Document this consultation in the final environmental assessment.

6. Please fully describe all the alternatives to the proposed project that were considered. Explain why they were not selected.

7. Please provide a list of all the permits and approvals that would be required for this project. Describe the status of each permit or approval.

8. The proposed project will consist of the construction of two baseball diamonds, one Little League/softball filed and one Senior Little League and Pony Field (total of 4 playing fields), and restroom facilities. Figure 3 shows only two baseball diamonds and the restrooms. Please indicate the locations of the Little League/softball field and the Senior Little League and Pony Field.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

Enclosure

c: Chris Hart & Partners

CHRIS HART & PARTNERS

October 31, 2000

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

Dear Ms. Salmonson:

Subject: Response to Comments on the Draft Environmental Assessment for the Lahaina Recreation Center Expansion, Maui

This letter is in response to your letter dated, August 25, 1999, which provided comments on the Draft Environmental Assessment (EA) for the Lahaina Recreation Center Expansion. The following points responds to your comments in the order they were presented.

1. The proposed restrooms will be not be connected to the County's wastewater collection system due to technical difficulties and cost constraints involved in connecting to the nearest point of adequacy. The State Department of Health has approved an individual wastewater system for the project.

2. A traffic impact study has been prepared for the project and will be included in the Final EA.

3. Lighting will be utilized in the parking lot and the playfields. Lighting in the parking lot will be downward directed in order to minimize spillover. Lighting of the ballfields needs to conform to recreational and safety requirements of the facility and therefore available mitigation measures are limited. It is noted that the ballfield lights will be used only as necessary and will not be used on a continual basis.

4. The irrigation well will be drilled and utilized only to supply irrigation water for the project. Well development will conform to the requirements of the Commission on Water Resource Management (CWRM). These requirements establish standards for well construction as well as pump installation. Well construction will incorporate standards of the CWRM in order to prevent contamination of the underlying aquifer. After the well is constructed, tests will be performed in order to determine the appropriate utilization rates. An assessment of the relationship and potential impacts of the well on the underlying aquifer will be conducted as part of the pump installation permitting requirements.

5. Documentation of agency consultation will be included in the Final EA.

6. A brief discussion of alternatives will be included in the Final EA. Land of the project was provided for and selected by Amfac, and as such there is no alternative location for the project. Alternative facilities were considered such as football fields, however, the final decision regarding facility needs were made in consultation with the community.

7. A list of required permits will be listed in the Final EA and an indication of the status of each permit will be provided.

8. Only two fields will be provided. We will edit our text to clarify the scope of the project.

Thank you for providing comments on this Environmental Assessment. If you have any questions, please do not hesitate to contact me at 242-1955.

Respectfully submitted,

Rory Frampton
Land Use Planner

cc: Mr. Floyd Miyazono, Department of Parks and Recreation