

# SOUTH MAUI REGION PARKS & OPEN SPACE MASTER PLAN

For the County of Maui, Hawaii









FINAL REPORT



OCTOBER 2003

# SOUTH MAUI REGION PARKS & OPEN SPACE MASTER PLAN

Parks and Open Space Master Plan for The Kihei-Makena Community Plan Region

Prepared for the County of Maui

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## **EXECUTIVE SUMMARY**

The following summarizes the scope of work contained within the *South Maui Region Parks and Open Space Master Plan*. For simplicity, it is organized by the questions the report has attempted to answer.

1. How much and what type of park space is there in South Maui? -

When we look at the *quantity* of parkland we find there is 340 acres of parkland and open space area in the Kihei-Makena Community Plan Area. –SEE TABLE 2.3, P.9.

This number can be deceiving, however. It appears to be a fair amount of land, but when we look at it closely and break it into its component park-types, it reveals a shortfall of 'Subregional Parks' as well as a lack of adequate park diversity.

'Subregional Parks' are important because they allow for more recreational facilities and parking to be present than at the already congested and well-used beach parks. They also cater to the non-tourist population whose recreation needs (both passive and active) might not be met by beach parks alone. In this report, beach parks are referred to as 'Special Use' and considered to be in demand at a countywide level and therefore they are considered 'Regional Parks'. As such, they are excluded from the 'Subregional Parks' designation. 'Subregional Parks' typically consist of smaller parcels (2 to 40 acres each) and therefore dispersed throughout a region, hopefully within walking distance to most people. –SEE P.7.

'Regional Parks' service a countywide demand (versus a Kihei-Makena demand) and tend to be large land tracts that can skew the numbers (i.e. Regional parks are 40+ acres in size like the 150-acre undeveloped Kihei Regional Park parcel) or they are 'Special Use' parks (i.e. beach parks).

When we look at 'Subregional' (non-regional, non-beach) parkland we find there to be only 136 acres. This translates to 5.9 acres per 1000 persons. This is nearly half of the National Recreation and Park Association (NRPA) recommended standard of 10.0 acres per 1000 persons. –SEE TABLE 2.4, P.10.

When we look at the *diversity* of parkland in South Maui we find that there is an adequate amount of District-type parks (10-40 acres size). But, there is a lack of Neighborhood and Mini-Parks. These last 2 park types are less than 10 acres in size, with Mini-Parks being less than 2 acres in size. –SEE TABLE 2.5, P.10.

The inventory of South Maui parks and open spaces can be viewed on the 65 park inventory sheets and also on the Inventory Maps at the end of SECTION II.

2. Is there a shortage? What is recommended? -

There should be 230 acres of 'Subregional' (non-regional, non-beach) parkland, using the NRPA 10.0 acres per 1000 guideline. The shortfall of 94 acres is in Neighborhood parks (2-10 acre) and Mini-Parks (<2 acre). We recommend more parkland (SEE P.11) and more park diversification in order to accommodate as wide a demographic and range of activities as possible. We also suggest considering a NRPA Level of Service study for the region. (SEE DISCUSSION P.5)

#### 3. Are there enough recreation facilities? -

Also important are the number of the facilities offered in the existing parks. When we look at this issue we find shortfalls in facility types like tennis courts, sports courts, tot lots and a need for one gymnasium. Some of this need will be met by the future 44-acre Kihei Community Park off Welakahao Road. -SEE TABLE 2.7, P.15.

#### 4. What are the recreation facilities recommendations? -

There are three issues when considering South Maui's park facilities. They are: (1) meeting present and future recreation needs, (2) the systematic refurbishment of existing parks and facilities and (3) the strategizing of all park elements into a cohesive system. The recommendations for improving park facilities are summarized in "Recommended Park Facilities Improvements", P.17.

Further general park design considerations are discussed in Section 8: Recommended Practices for Park Planning. This section will be of interest to Park Planners and Park Designers. -SEE P.20.

#### 5. What is the Vision for South Maui Parks? -

The goal of the South Maui Region Parks and Open Space Master Plan is consistent with the goal of 'land-use efficiency' proposed in the *Kihei-Makena Community Plan*. The goal is to build a well-planned community with land use and development patterns designed to achieve the efficient installation of an infrastructure network that meets the present and future needs of the community while preserving and enhancing the unique natural character of Maalaea, Kihei, Wailea and Makena. The South Maui Region Parks and Open Space Master Plan implements this goal by, in part, proposing a unified system of non-motorized accesses to community resources.

The Proposed network of non-motorized paths and trails can be viewed on the Future Vision Plans at the end of SECTION III.

Six Implementing Actions are recommended to achieve the scope of 'The Vision'. -SEE P.44.

- 1. Establish Priority and Sub-Priority Routes for the Proposed Open Space System, -SEE P.44,
- 2. Establish "Neighborhood Open Space and Pedestrian Connections Plans", -SEE P.46,
- 3. Adopt an Open Space Ordinance, -SEE P.47,
- 4. Implement Park Land Recommendations, -SEE P.11,
- 5. Implement Park Facilities Recommendations, -SEE P.17,

- **6.** Continue the process of public input into the refinement of the design of the currently proposed 44-acre Kihei Community Park in central Kihei.
- 6. What will the future 44-acre Kihei Community Park offer to the community?

As part of the scope of work for this report, Chris Hart & Partners is submitting a park design based upon input from public meetings, the Departments of Parks and Recreation and the Kihei Community Association. –SEE P.58

### I. PROJECT INTRODUCTION

#### 1. PURPOSE

The purpose of this report is to provide a working tool for use by the County of Maui Department of Parks and Recreation and others as a guide to parks and open space enhancement and expansion in South Maui.

#### The report includes;

- An inventory of Federal, Sate and County parks which identifies the current status of park facilities in relation to established recreation standards and local needs.
- A South Maui Parks and Open Space Vision of projected future recreation needs which
  envisions the landscape beautification of streets and an interconnected network of parks
  and open spaces linked by bikeways and pedestrian greenways.
- A landscape architectural development plan of the 44-acre Kihei Community Park, which includes recommended recreation facilities and a planning and construction cost estimate.

#### 2. SCOPE

- The South Maui Parks Inventory includes a list and location of all Federal, State and County parks, together with their location, parking, facilities and 'comments & recommendations'. The type of parks and facilities identified are as follows:
  - 1. Passive Parks
  - Regional Parks
  - 3. Tennis Courts
  - 4. Sports Fields (including soccer. Football, baseball, softball, etc.)
  - 5. Sports Courts
  - 6. Tot Lots
  - 7. Community Centers
  - 8. Gymnasiums
  - 9. Swimming Pools
  - 10. Related Parks Facilities (Bike paths / greenways)

#### 11. Police & Fire Facilities

- The South Maui Parks and Open Space Vision is a "collective vision" and the result of many years of workshops and public forums which were researched. The work of eight groups were tabulated into "Kihei's Wish List" (see p.41). This is the basis for the Parks and Open Space Vision. Further validation has been established with current public input via 5 community meetings. The discussion focused on community vision as it related to parks facilities including linkage bikeways and greenways and police station requirements in the region. It also included a discussion of community values and what was important and acceptable.
- The 44-acre Kihei Community Conceptual Development Plan was prepared by the
  consultant team after reviewing planning files of the prior 150-acre Regional Park and
  meeting with parks planning staff. The resultant development plan has been further
  validated in the context of the 5 community meetings (see p.54).

#### 3. BRIEF HISTORY OF PARKS AND OPEN SPACE IN SOUTH MAUI

Historically, very little public park land existed in the South Maui region serving Maalaea, Kihei and Makena as small villages that stretched along Maui's southern coast. There were few formal public parks; however, there were miles of isolated sandy beaches that were always destinations for adventurous swimmers and campers. These beaches were isolated due to substandard roads and the lack of water.

Public facilities that did exist were adjacent to boat launches. There was a small park on the Lahaina-side of the current Buzz's Wharf in Maalaea, Kalama Park in Kihei next to the boat ramp at Cove Park and a small park at Makena Landing. In addition to these few public parks, various private facilities were operated by companies and organizations for use by employees or members. Examples include the former Maui Pine Park at the junction of Kihei Road and Mokulele Highway and the VFW hall on Uluniu street in Kihei.

After statehood in 1959, a long narrow strip of land along the coast was set aside for public access. These state beach reserve lands connected with county lands to form one continuous strip of public land fronting the entire Kihei coast. It stretched from the old wharf in North Kihei to the beginning of what would become the Wailea resort. The shoreline would be the focus of Kihei's park planning through to the 1990's. Consequently, Kalama Park became the "central park" for Kihei with large open play areas for baseball, volleyball, inline skating, skateboarding, picnicking, etc. Kamaole Parks I, II and III had parking lots and bathrooms (with a volleyball pit and a swing set) and the only other recreational facility was located on

little known beach reserve land fronting the condominiums in north Kihei (Waipuilani Park) which had 4 tennis courts.

The growth of the 1980's brought a realization in the 1990's that more park lands were necessary inland from the shoreline. The lack of community facilities and playing fields for active recreation was listed as the second most pressing problem the 1992 update of the *Kihei-Makena Community Plan*. This problem was also mentioned in the 1992 Maui Public Facilities Assessment.

"Despite having a relatively large park-area to people ratio, Kihei's parks are lacking in many facilities. This may be due to the fact that they are beach and tourist oriented, where surf and sand are more important than tot lot and ballfield." -p.7-30, Maui Public Facilities Assessment, County of Maui, 1992.

The first attempt to create open space in the inland core of Kihei came in the early 1980's with the realignment of the proposed Piilani Highway mauka of the new Kihei School site at Lipoa Street. This created an empty corridor in the original alignment that the landowner proposed as a bike/pedestrian path to serve their proposed Baldwin-Malama housing development. The county proposed a 4-lane North-South collector road instead. A compromise proposed in the current plan is a discontinuous road with a separate but adjacent bike path.

The second attempt was the purchase of 150 acres mauka of the Pi'ilani highway near the Kihei Sewage Treatment Facility. A subsequent citizen planning effort found the site too difficult and expensive to develop, due to steep topography and rocks, so the effort was suspended.

A third, successful attempt in 1998 created a pool and community center in central Kihei fronting Lipoa Street, north of the Kihei Elementary School.

Finally, in 2001 \$2.4 million in bond monies was used to purchase up to 69 acres of the undeveloped balance of Project District 5 in the *Kihei-Makena Community Plan*. Forty-four acres of this has been identified as the Kihei Community Park site which has been master planned as a central park with play fields and a future community center and amphitheater.

The most recent initiative and the genesis of this report, is the result of language adopted into the community plan in 1996 called *The Kihei 2000 Amendment* which recommended an interconnected system of trails utilizing an open space framework of wetlands, drainage ways, beach reserves, natural areas, road and utility easements, parks and acres of vacant land slated for housing south of Lokelani Intermediate School.

# II. SOUTH MAUI PARKS AND OPEN SPACE ASSESSMENT

#### 1. IN THIS SECTION

This section is an inventory of the public facilities available to the South Maui park and open space user. It also contains recommendations for providing the appropriate amount and type of land and the appropriate number of facilities. Included in the inventory are (1) parks, (2) beach accesses, (3) beach reserves, (4) beach parking lots, (5) schools, (6) community centers, (7) police & fire stations and (8) other publicly owned open spaces such as future park and school sites, undeveloped state-land as well as stormwater detention basins and one lighthouse parcel. These lands represent the sum of the available County, State and Federal assets from which the South Maui Region Parks and Open Space Vision takes shape. This section also contains recommendations for park planners. These are design guidelines whose intent is to assist park planners and designers with future park and open space-related decisions.

## 2. INVENTORY OF PARKS AND FACILITIES

The park inventory information sheets, at the end of this section, represent all the publicly-owned and accessible land in the *Kihei-Makena Community Plan Region*. The inventory includes information on each of park or open space site, including area, location and available facilities. Also included are comments and recommendations about each site. The comments generally concern the present condition of the site and/or its facilities, and recommendations for future improvements are offered as warranted. The process of upgrading South Maui parks should be initiated as a separate project in phases, which involves the neighborhood stakeholders.

### 3. PARK ASSESSMENT STANDARDS

In the past, the National Recreation and Park Association (NRPA) *Park, Recreation, Open Space and Greeway Guidelines* has informed park planners regarding park systems' spatial and facility requirements. According to this document, a standard of 10 acres per 1000 persons was considered an appropriate target for many communities throughout America. Park facility's 'suggested development standards' were also used as to inform and guide park planning. However, these suggested standards are no longer available from the NRPA.

"In deference to the direction of local government planning and budgeting in the 1990s, the number of units per population for a facility development has been deleted from the *Suggested Facility Development Standards*. This reflects a conviction that each community must shape basic facility standards and park classifications or definitions to fit individual circumstances." – p.122, *Park Recreation. Open Space and Greeway Guidelines*, NRPA, 1996

Instead the NRPA recommends a Level of Service (LOS) study be conducted for individual communities. The LOS is recommended as it more accurately reflects an assessment of community needs, rather than a generic standard or guideline. This type of study was developed during the 1980s to assess infrastructure facilities such as water, sewer, storm water drainage and transportation.

"The NRPA recognizes the importance of the level of service as:

- An expression of minimum acceptable facilities for citizens of every community.
- A guideline to determine land requirements for various kinds of park and recreation areas and facilities.
- A basis for relating recreational needs to spatial analysis within a community-wide system of parks, recreation areas, and open spaces." – p.61, Park Recreation. Open Space and Greeway Guidelines, NRPA, 1996

The following park inventory and assessment uses standards found in the <u>Maui Public Facilities Assessment</u> (1992) by R.M. Towill Corporation, with some modification<sup>1</sup>. This report was used as a basis for calculating how much park area and how many facilities South Maui currently has and should have in the future. These standards are considered valid because they are adjusted based upon local information. The Maui Public Facilities Assessment used information from

<sup>&</sup>lt;sup>1</sup> The Maui Public Facilities Assessment (1992) uses defacto population to assess park facilities. Chris Hart and Partners use census population for assessing the quantity of park facilities.

Maui County, the City and County of Honolulu as well as the Urban Land Institute and the NRPA to arrive at its suggested standards.

#### 4. PARK LAND

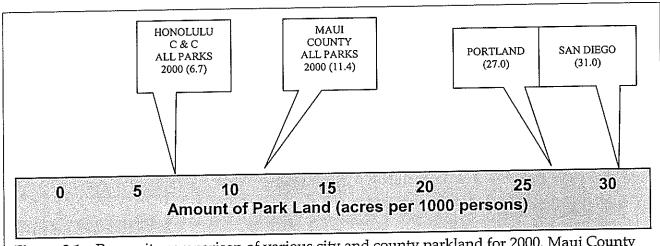
Currently the *Kihei-Makena Community Plan* Area has approximately 340 acres of publicly-owned park and open space land. This includes nearly all County and State facilities, schools, beach reserves, beaches and excludes the State-owned Makena State Park, the State-owned Ahihi-Kinau Natural Area Reserve as well as the federally-owned Kealia Pond area. It reflects the gross area accessible to individuals to pursue park-related activities and appears to be a substantial amount. However, upon closer inspection, we find that much of this land is beach park and almost half is part of the 150-acre Kihei Regional Park parcel. Beach parks are not ideally suited for the active recreation types of park facilities needed in South Maui. They are generally too small to have facilities like ballfields and gymnasiums and would only add to the substantial numbers of people and cars drawn to the coast already. What is needed is a higher diversity of parks located inland (mauka) from the shoreline, within walking distance of residential neighborhoods.

In the 1992 Maui Public Facilities Assessment, an important distinction was made between park land types. The two categories were Regional and Sub-regional parks. Considering that most open space areas in the Kihei-Makena region were beaches, the report recommended more non-beach areas would be needed in order to provide a wider variety of active and passive recreation facilities to residents. Beach parks were seen as unsuitable for recreational facilities such as tennis courts, gymnasiums, etc. Beaches were classified as 'special-use' and therefore Regional in nature, (i.e. serving an island-wide demand and not just a local demand). Consequently, beach parks were not considered Sub-regional parks and as such not factored into the Report's calculation of total park area. This allowed planners to focus on the non-beach areas and determine if there was enough of this type of land available to serve the Kihei-Makena population. A standard was developed based upon previous National, institutional, County and Honolulu standards. It was determined that 10 acres per 1000 persons of park land was an adequate target for Kihei-Makena.

For the present discussion, park areas are grouped by size and function into two main categories; Regional and Sub-regional. Sub-regional parks are further grouped into 3 types. Although this classification does not appear in the Maui County Code, it is more refined than what does appear. See Chapter 19: Zoning, Park Districts 19.615. The proposed park classification originally appeared in the Maui Public Facilities Assessment (1992) and coincides with similar current park classifications from the City and County of Honolulu.

Maui County should have 15 acres of *Regional* park land per 1000 persons and **Kihei-Ma**kena Community Plan Region should have 10 acres of *Sub-Regional* park land per 1000 persons. Regional park land is considered a County-wide concern and as such its standard is not relevant to a discussion concerning parks in the Kihei-Makena community plan region.

- (1) Regional parks are considered to be ideally greater than 100 acres, a minimum size of 40 acres and service a population within 1 hour of its location. Additionally, Special-Use Parks are considered to be Regional Parks. These include Beaches, Zoos, Botanical Gardens, Golf Courses, Nature Parks and Reserves and Historical Monuments.
- (2) Sub-regional parks are typically up to 40 acres in size and include Mini-Parks, Neighborhood Parks and District Parks. These serve residents within 30 minutes of their location.
  - a. District Parks are the largest sub-regional parks. They are 10-40 acres in size, serve users in a 30 minute radius and provide larger facilities, such as recreation centers, gymnasiums and pools.<sup>2</sup>
  - b. Neighborhood Parks are between 1.6 and 10 acres. They serve people within a 1 mile radius and provide facilities such as baseball/soccer fields, tennis courts, etc.<sup>3</sup>
  - c. Mini-Parks are approximately .35 1.5 acres in size. They usually serve persons within walking distance (1/4 to  $\frac{1}{2}$  mile radius) and have tot lots and picnic tables.<sup>4</sup>



**Figure 2.1** – Per capita comparison of various city and county parkland for 2000. Maui County has 1,240 acres of *county* parkland.

<sup>2</sup> Maui County Code does not have a 'District' park designation.

 $<sup>^3</sup>$  Maui County Code defines 'Neighborhood Park District' as min. 2 acres in size. See 19.615.020.

<sup>&</sup>lt;sup>4</sup> Maui County Code does not have a 'Mini-Park' designation.

#### **Past Inventory**

In 1990, South Maui (Kihei-Makena Community Plan Region) had 10 Regional Parks (30.8 acres) and 3 Sub-regional Parks (53.8 acres). All of the regional parks were considered Special-Use Parks because they were beach parks. Kalama Park is considered a District Park because of the types of facilities it has, despite also being a beach park. See Table 2.1 below.

Table 2.1 - 1990 Kihei-Makena Area Park Land

Park Name	Size (acres)	Category	
Cove Park	0.2	Regional	Special-use
Maalaea Park	0.7	Regional	Special-use
Charlie Young Beach	1.6	Regional	Special-use
Poolenalena Beach Park	2	Regional	Special-use
Ulupalakua Park	2	Planned	
Kamaole Beach Park II	2.2	Regional	Special-use
Kalepolepo Beach Park, Lot 2a	2.6	Regional	Special-use
Kamaole Beach Park I	3	Regional	Special-use
Kihei Complex and Youth Center	4.4	Sub-regional	Neighborhood
Kihei Memorial Park	5.3	Regional	Special-use
Kamaole Beach Park III	11.2	Regional	Special-use
Kilohana Park	12.9	Sub-regional	Neighborhood
Kalama Beach Park	36.5	Sub-regional	District
Total	84.6		

In 1990, Kihei-Makena had a census population of 15,365. This would imply a park-to-population ratio of 3.5 acres per 1000 residents<sup>5</sup>. Since beach parks are considered 'Special Use' and therefore 'Regional', they are excluded from this calculation. The ratio would have been 1.0 acre per 1000 persons with the inclusion of beach parks and using the Kihei-Makena *defacto population*<sup>6</sup>. This last calculation implies that visitors heavily use beach parks and the defacto population is therefore appropriate. As seen in Table 2.2 below, these values do not compare favorably with the park standard of 10.0 acres park land per 1000 persons.

Table 2.2 - 1990 Kihei-Makena Park-to-Population Ratios (acres per 1000 persons)

1990		Census Population	Defacto Population	Park Standard
		15,365	31,444	2 2 2 3 3 2 3 3 0 0 0 0 0 0 0 0 0 0 0 0
Sub-Regional Parks (acres)	53.8	3.5		10.0
Sub-Regional plus Beach Parks	84.6		1.0	

NOTE: Sub-Regional parks do not include beach parks.

<sup>&</sup>lt;sup>5</sup> Maui Public Facilities Assessment (1992) states a ratio of 5.2 for 1990. It is not apparent how this number was calculated.

<sup>&</sup>lt;sup>6</sup> Defacto population from Maui Public Facilities Assessment (1992), which includes visitors.

#### Park Availability

.

The current inventory of County parks is listed in Table 2.3 below. Shaded parks indicate newly created park land since 1990. Currently, Kihei-Makena has 17 Regional Parks<sup>7</sup> (214 acres), 16 of which are beach parks (64 acres), and 11 Sub-Regional Parks (125 acres).

Table 2.3 – 2000 Kihei-Makena Area Park Facilities

Park Name	Size (acres)	Category	Type
Cove Park	0.2	Regional	Special-use
Maalaea Beach Park	0.7	Regional	Special-use
Kenolio Park	0.8	Sub-regional	Mini-Park
Palauea Beach Parcels	0.965	Regional	Special-use
Kamaole Point (GATRI)	1.394	Regional	Special-use
Charlie Young Beach	1.6	Regional	Special-use
Poolenalena Beach Park	2	Regional	Special-use
Hale Piilani Subdivision Park	2	Sub-regional	Neighborhood
Makena Landing	2.108	Regional	Special-use
Kamaole Beach Park II	2.2	Regional	Special-use
Keonekai Park	2.38	Sub-regional	Neighborhood
Horita's Beach Park (Ka Ono Ulu)	2.5	Regional	Special-use
Makena Beach Park (Maui Prince)	2.58	Regional	Special-use
Kalepolepo Beach Park, Lot 2a	2.6	Regional	Special-use
Kenolio Complex Ballfield	2.806	Sub-regional	Neighborhood
Kamaole Beach Park I	3	Regional	Special-use
Kalama/Baldwin Basin	4.14	Sub-regional	Neighborhood
Kihei Complex and Youth Center	4.4	Sub-regional	Neighborhood
Kihei Memorial Park	5.3	Regional	Special-use
Maui Peace Park	5.35	Regional	Special-use
Kihei Community/Aquatic Center	9	Sub-regional	District
Kamaole Beach Park III	11.2	Regional	Special-use
Kilohana Park	12.9	Sub-regional	Neighborhood
Kilohana Drive Parcel	5.752	Sub-regional	Neighborhood
Kihei Beach Reserve	20.22	Regional	Special-use
Kalama Beach Park	36.3	Sub-regional	District
Kihei Community Park	44.833	Sub-regional	District
Kihei Regional Park	150	Regional	
Total	339.2		

Note: Shaded parks are new since 1990. Kenolio Park (0.8 ac.) is pump station with no public access.

<sup>7</sup> This number includes the undeveloped 150 acre Kihei Regional Park

In 2000, Kihei-Makena had a census population of 22,9138. This implies a park-to-population ratio of 5.5 acres per 1000 persons, compared to the recommended ratio of 10 acres per 1000 persons. Since beach parks are considered 'Special Use' and therefore 'Regional', they are excluded from this calculation. The ratio is 4.8 acres per 1000 persons with the inclusion of beach parks and using the Kihei-Makena defacto population<sup>9</sup>. This last calculation implies that visitors heavily use beach parks and the defacto population is therefore more appropriate. See Table 2.4 below.

Table 2.4 - 2000 Kihei-Makena Park-to-Population Ratios (acres per 1000 persons)

2000		Census Population	Defacto Population	Park Standard
		22,913	39,539	
Sub-Regional Parks (acres)	125.3	5.5		10.0
Sub-Regional plus Beach Parks	189.2		4.8	20 25 CHB, 21 CH

Note: Sub-Regional parks do not include beach parks.

#### Park Diversity

As seen from the above table, the park-to-population ratio in South Maui has improved significantly over the past decade. However, there is still a park land shortfall for 2000 of 104.7 acres of sub-regional park land<sup>10</sup>. Half of this shortfall is attributed to a lack of mini-parks, whose total area satisfies only 2% of its recommended amount. The two other categories are 98% and 37% of their recommended quantities, for district and neighborhood parks respectively. This is shown in Table 2.5 below.

Table 2.5 - Recommended Kihei-Makena Sub-Regional Park Area

Γ	PAST	PRESENT	R	ECOMMENDE	D
Year	1990	2000	2000	2010	2020
Census Population	15,365	22,913	22,913	27,181**	31,576**
District Parks	36.3	90.1	92	109	126
Neighborhood Parks	17.3	34.4	92	109	126
Mini-Parks	0.00	0.8	46	54	63
Sub-Regional Parks (acres)	54	125.3	230*	272*	315*

<sup>8</sup> United States Department of Census 2000

<sup>&</sup>lt;sup>9</sup> Baseline Forecast, Maui County Community Plan, Update Program: Socio-Economic Forecast 2002

<sup>10</sup> Based on 10.0 acres per 1000 persons

\*Assumes 10 acres per 1000 persons (District Park: 4 ac/1000 persons, Neighborhood Park: 4 ac/1000 person, Mini-Park: 2 ac/1000 persons)<sup>11</sup>

\*\* Baseline Forecast, Maui County Community Plan, Update Program: Socio-Economic Forecast 2002

## 5. RECOMMENDED PARK LAND IMPROVEMENTS

The Maui Public Facilities Assessment Report (1992) states an assumed 2010 Kihei-Makena population of 22,830. Given this assumption, it suggests sub-regional parkland should equal 228 acres by 2010. However, the Kihei-Makena population has already exceeded that projection.

A revised 2010 population estimate is 27,181<sup>12</sup>. According to this estimate, **Kihei-Makena** should have 272 acres of sub-regional parkland by 2010. This implies that Kihei-Makena will need to more than double its 125-acre sub-regional park area to meet the 2010 target of 272 acres. This will require about 18 acres of additional *sub-regional* park land per year. Over the past 10 years, Kihei-Makena has acquired about 8 acres of sub-regional park land per year.

The issue of availability of park land is important as it measures the ability of a community to meet the demand of residents for passive and active recreation areas. It can also inform the decisions of park planners regarding future land acquisition by highlighting the lack of land area as well as a lack of diversity of park types. The Maui Public Faculties Assessment Report (1992) emphasizes this point by highlighting the need for more sub-regional park land in which to place needed facilities. It drew attention to the fact that, in 1990, there was a need for additional non-beach land to accommodate community demand for additional facilities that were not suitable for beach-park locations. It appears as though the County has heeded this recommendation and incorporated an additional 82 acres of non-beach, sub-regional park land into the Kihei-Makena area. However, as noted in the following section, there is still a lack of the facilities needed to develop this land.

When considering park diversity, Kihei-Makena is lacking in the smallest of these, the Mini-Park. There are not any Mini-Parks located in the South Maui area. The only parcel of land that qualifies, based solely on size, is a liquid waste pump station at Kenolio Park. These parks are vital for providing small pockets of open space within walking distance of nearby homes. Given a public demand for more tot lots in the region, these parks will also play an increasingly important role in the future. It should be noted that mini-parks are not exclusively for use as tot

<sup>11</sup> Maui Public Facilities Assessment 1992

<sup>12</sup> Baseline Forecast, Maui County Community Plan, Update Program: Socio-Economic Forecast 2002

lots. For more information regarding this type of park, see "Recommended Practices for Park Planning".

Table 2.6 below shows the past, current and projected number of people for Kihei-Makena (shaded). Note that there will be at least 1500 pre-school children by 2010, for which tot lots within mini-parks would be greatly appreciated.

Table 2.6 - Kihei Makena Population by Age Cohort

	Historical 1990	Historical 2000	Projected 2005	Projected 2010	Projected 2015	Projected 2020
Total Population	15,365	22,870	24,984	27,181	29,399	31,576
Population by Age						
<4	1,037	1,419	1,472	1,574	1,686	1,686
5 to 9	1,011	1,541	1,649	1,781	1,919	1,919
10 to 14	923	1,392	1,538	1,680	1,821	1,821
15 to 19	733	1,280	1,420	1,554	1,685	1,685
20 to 24	990	1,190	1,255	1,349	1,450	1,450
25 to 34	3,184	3,518	3,566	3,780	4,034	4,034
35 to 44	3,261	4,395	4,748	5,146	5,556	5,556
45 to 54	1,710	3,881	4,621	5,166	5,661	5,661
55 to 64	1,191	2,192	2,462	2,704	2,938	2,938
65 to 74	5,272	1,205	1,267	1,361	1,462	1,462
75 to 84	306	707	810	895	975	975
>84	56	150	174	193	211	211

SOURCE: Maui County Community Plan Update Program: Socio-Economic Forecast, Phase I Report, June 14, 2002 - Baseline Forecast,

#### Park Land Acquisition

Other than direct purchase by the County, park land is acquired during the creation of new subdivisions. Currently, Maui County requires a park area dedication for residential subdivisions according to *Title 18. Subdivisions 18.16.320 Parks and Playgrounds* of the *Maui County Code*.

- 1. The director of parks and recreation shall require each subdivider, as a condition of approval of a subdivision, to:
- 2. Provide land in perpetuity or shall dedicate land for park and playground purposes; ...
- 3. The land provided or dedicated shall meet the following standards:
- 4. Each subdivider shall convey the land to the County by warranty deed free and clear of any liens or encumbrances; pay for recordation of title to the County; and insure the County's title by providing a standard owner's title insurance policy for the County with coverage in the amount of the fair market value of the property dedicated herein;
- 5. The land provided or dedicated shall be located in the community plan region in which the proposed subdivision is located, or, subject to council approval by resolution approved by a majority of its members, in the community plan region adjacent to the community plan region in which the proposed subdivision is located, excluding Molokai and Lanai;
- 6. The land provided or dedicated shall have an area of five hundred square feet for each lot or unit, in excess of three, resulting from the subdivision; and
- 7. The land provided or dedicated shall be subject to acceptance by council resolution after the subdivider has consulted the director of parks and recreation, the director of public works and waste management, and the director of planning who will submit their recommendations to the council within thirty days of the initial park assessment meeting with subdivider or waive the opportunity to do so.

The size, shape, topography, geology, access, use, and location of the site shall be suitable for park and playground purposes, as determined after consultation with the director of parks and recreation. Upon the provision of land in perpetuity or the dedication of land by the subdivider, the County assumes the cost of improvements and maintenance, and the subdivider is accordingly relieved from such costs.

Privately owned and maintained land, within a subdivision, can satisfy the above dedication if it is approved by the director of parks and recreation. The subdivider receives a park credit equal to the area of dedicated land and the County is not responsible for its maintenance.

For further information see Appendix C: Park Assessment Fund

#### 6. PARK FACILITIES

The Kihei-Makena community is expected to grow from approximately 23,780 to 31,576 between 2002 to 2020. During this time, existing community recreational facilities will need to be supplemented by an additional 12 tennis courts, 2 sports fields, 13 sports courts, 4 tot lots, 1 community centers and 1 gymnasium (see table 2.7 below). This needs assessment is based upon facilities-to-people ratios developed by the County of Maui in the Maui Public Facilities Assessment (1992). Calculation of facility needs is based upon census population. Census population is considered more relevant than defacto population, as it assumes visitors make up a very small portion of the user-group. Defacto population figures are included for informational purposes only.

Facilities are defined in the following terms:

- Tennis Courts: out door, enclosed tennis courts
- Sports Fields: baseball, soccer, softball, football
- Sports Courts: basketball, volleyball
- Tot Lots: 2400 to 5000 ft<sup>2</sup> with play equipment for children under 9 and seating areas
- Community Center<sup>13</sup>: County building with common indoor areas for passive and active
  use including community gatherings and amenities (kitchen, restrooms). It is adjacent to
  outdoor recreation facilities. There are 21 community centers on Maui. Examples are
  Wailuku Community Center, Kihei Community Center (9,000 ft²), Kenolio Community
  Center, Mayor Hannibal Tavares Community Center (16,000 ft²).
- Gymnasium: County or otherwise public building with indoor recreation facilities, mostly basketball and volleyball, and spectator facilities. An example is Eddie Tam Memorial Gym (4500 ft²).
- Swimming Pool: County or otherwise public swimming facility (25M or 50M) with associated change rooms, restrooms, showers, lifeguards, etc. Examples are Kihei Aquatic Center, Mayor Hannibal Tavares Community Center.

The current and recommended number of facilities is offered in the following table. The numbers do not take into account the proposed 45-acre Kihei Community Park and its associated facilities.

14

<sup>13</sup> For a list of Community Centers on Maui see <a href="http://www.co.maui.hi.us/departments/Parks/CommunityCenters.htm">http://www.co.maui.hi.us/departments/Parks/CommunityCenters.htm</a>.

Table 2.7 - Kihei-Makena Recommended Facilities Summary

		PAST	PRESENT	RE	COMMENDE	D <sup>2</sup>
	Year	1990	2002	2000	2010	2020
	Census Population	15,365	23,783 <sup>1</sup>	22,913	27,181 <sup>3</sup>	31,576 <sup>3</sup>
	Defacto Population	31,444		39,539 <sup>3</sup>	45,252 <sup>3</sup>	50,737 <sup>3</sup>
	Tennis Courts	6	9	15	18	21
≘	Sports Fields	2	14	11	14	16
(total)	Sports Courts	3	12	18	22	25
<b>&gt;</b>	Tot Lots	3	2	5	5	6
FACILIT	Community Center	0	2	2	3	3
ACI	Gymnasium	0	0	1	1	1
μĽ	Swimming Pool	0	1	1	1	1

<sup>1-</sup>Extrapolated using a population increase of 435 persons per year.

Table 2.8 - Facility Assessment Criteria - Population per Facility

	Census Population	HONOLULU*	MAUI**	NRPA***	SUGGESTED
	Tennis Courts	4000	1500	1000	1500
=	Sports Fields	2000	10000	6000	2000
(total)	Sports Courts	1250	N/a	500	1250
 ≻	Tot Lots	5000	N/a	N/a	5000
늘	Community Center	10000	N/a	25000	10000
FACI	Gymnasium	25000	N/a	N/a	25000
Ē	Swimming Pool	N/a	N/a	25000	25000

<sup>\*</sup>City and County of Honolulu, DPR Long Range Plan, 1980 and Personal Communications, 2002.

The recommended quantity of facilities is based upon ratios presented in Table 2.8, which are taken from the Maui Public Facilities Assessment (1992). These standards were developed by the County after considering standards from the NRPA as well as the City and County of Honolulu. C & C of Honolulu still uses the same standards that were used when the Maui standards were created. The NRPA standards have changed slightly, but not significantly, since being used in the Maui Public Facilities Assessment. The 'Suggested' facility standards in Table 2.8 are still considered valid for use in 2002 and beyond.

As can be seen from Table 2.7, South Maui has a shortfall in most categories. In order to answer the question of where to fit all the required facilities, we should consider which park land is currently available for development.

<sup>2-</sup>Based on 1992 ratios from the Maui Public Facilities Assessment (1992)- see Table 2.7

<sup>3-</sup>Baseline Forecast, Maui County Community Plan, Update Program: Socio-Economic Forecast 2002

<sup>\*\*</sup>County of Maui, Open Space and Outdoor Recreation Plan, 1974

<sup>\*\*\*</sup>National Parks and Open Space Standards, 1982

#### Park Land Development

According to Table 2.9, Kihei-Makena has 211 acres of developable park land. However, 150 acres are within the Kihei Regional Park parcel which is considered a Regional park and implies a different set of facility standards (based on a County-wide demand as opposed to Kihei-Makena demand). Excluding this land, there is only 61 acres of developable *sub-regional* park land. Undeveloped beach parcels (Maui Peace Park, Kihei Boat Ramp, the Kaho'olawe Island Reserve Commission parcel) are not recommended for future recreation facilities because they will function as beach parks (regional and special-use parks) and as such are not recommended for recreational facilities such as tennis courts, gymnasiums, etc.

The proposed 45-acre Kihei Community Park will make up some of the facilities shortfall by offering 3 baseball fields, 3 soccer fields, 3 tot lots and 6 tennis courts. After this is taken into account there will still be a need for 1 gymnasium, 1 community center and 6 sports courts. The only viable undeveloped land parcel is Kilohana Park (12-acres) (see inventory sheet #8 in section II of this report). It is well-located in relation to the other district parks that are in central Kihei (Kihei Community Center and the proposed Kihei Community Park). These two district parks are centrally located, while Kilohana Park serves a more southern geographic area. It is also accessible to the Piilani Highway as well as being adjacent to the proposed North-South Collector Open Space Corridor. As a district park, Kilohana Park would service residents near Kilohana Drive, particularly Maui Meadows, Keonekai Heights subdivision, Kihei Village and Puu Hoolai development (in addition to residents of Wailea). At 12 acres it would be small for a district park (and part of that is already being used as a soccer field). It also has a steep grade change, making it less-than-ideal for sports courts. However, Kihei Community Center and Aquatic Center sits on a mere 9 acres and careful design could minimize the impact of steep grades. A community center and some sports courts could be located on this land. Alternatively, a gymnasium could be located here, however this is not recommended, as a gymnasium should be more centrally located and near schools.

Table 2.9 – 2000 Kihei-Makena Area Undeveloped Park Land

Park Name	Size (acres)	Category	Type	Undeveloped
Kenolio Park	0.8	Sub-regional	Mini-Park	-
Hale Pillani Subdivision Park	2	Sub-regional	Neighborhood	-
Keonekai Park	2.38	Sub-regional	Neighborhood	-
Kenolio Complex Ballfield	2.806	Sub-regional	Neighborhood	-
Kalama/Baldwin Basin	4.14	Sub-regional	Neighborhood	-
Kihei Complex and Youth Center	4.4	Sub-regional	Neighborhood	**
Kihei Community/Aquatic Center	9	Sub-regional	District	
Kilohana Park	12.9	Sub-regional	Neighborhood	10.8

Kilohana Drive Parcel14	5.752	Sub-regional	Neighborhood	5.752
Kalama Beach Park	36.3	Sub-regional	District	•
Kihei Community Park	44.833	Sub-regional	District	44.833
Kihei Regional Park	150	Regional		150
Tanerregionarraix			Total	211.38

## 7. RECOMMENDED PARK FACILITIES IMPROVEMENTS

In general, park facilities within Kihei are in need of repair, maintenance and aesthetic improvements, while park facilities in Wailea seem to be in better condition. Maintenance is always an issue, but not necessarily a key issue, since repairs will take place as long as the Parks and Recreation Department is aware of their need. Personnel numbers dictate how well facilities are maintained, and this is determined by budgetary constraints. Currently, the Maui Parks and Recreation Department has 400 personnel, second only to the 800 personnel associated with Public Safety.

There are three issues when considering South Maui's park facilities. They are: (1) meeting present and future recreation needs, (2) the systematic refurbishment of existing parks and facilities and (3) the strategizing of all park elements into a cohesive system.

- (1) When examining the present and future recreation needs of South Maui residents (identified in part 6 of this section), consider the following recommendations:
- a. This will entail developing an 'Infill Strategy' in order to provide needed active recreation facilities on existing under-developed County and State-owned park land. Such a strategy should study existing park land resources and dedicate needed facilities to appropriate areas. A possible set of criteria for locating needed facilities would consider such things as; proximity to population, schools and other facilities, user conflicts, spatial design, etc.
- b. A gymnasium is the one facility that will serve the greatest number of people in the area. It makes sense that its location should be accessible to the largest number of people possible. It should therefore be located near the center of the community, within walking and cycling distance to a large number of residents as well as children who will have school-day access to the facility. Kilohana Park (12.895 acres) is large enough to

<sup>14</sup> Includes the new Wailea Fire Station

accommodate a gymnasium. However, as mentioned in Part 6 of this section, a gymnasium might best be situated near schools and populations.

- c. A community center is another facility that will serve a large number of people and should be near schools and houses. Kihei Community Center is central and near Lokelani and Kihei Elementary schools. It might make sense to locate the additional recommended community center at either the north end or the south end of Kihei. With the Kihei Youth Center already located in the north, perhaps the ideal location for a second community center is in the south, in the vicinity of Kilohana Drive. Here it would be relatively close to Kamalii Elementary School as well as nearby residential developments.
- d. Tennis courts are currently located in the Kihei Beach Reserve/Waipuilani Park (4 courts), Kalama Park (4 courts) and Lokelani School (1 court). Basketball courts are dispersed throughout the region, none of which are central. It may be an option to convert the courts at Kalama Park into basketball courts. The additional 6 courts at the proposed Kihei Community Park would offset the loss of these 4 courts, after which there would still be 11 tennis courts and Kihei would gain centrally located basketball courts at Kalama and have a new tennis center at Kihei Community Park.
- e. The 8.261-acre Kaho'olawe Island Reserve Commission (KIRC) parcel in South Kihei is large enough for some small recreation facilities, but this area has an existing conceptual design. It might also be re-zoned from existing Park designation to Public/Quasi-Public zoning in the future, to allow for KIRC offices and youth education facilities.
- f. Two main ideas emerged from the public process meetings held in Kihei from March to July, 2002. First, there was large public consensus for the idea of "shared use". The idea was to ensure that large public facilities should be centrally located and near schools, whenever possible. The second consensus idea was in favor of some type of public attraction located in the proposed 44-acre Kihei Community Park. The form this 'attraction' should take is open to debate. A fountain/water-play-area was a popular idea, as was the idea of a central landmark in the park, a public art feature for example.
- g. One source of funding for park facility improvements is the Park Assessment Fund (see Appendix C: Park Assessment Fund) as stipulated in the County Code, Title 18. The purpose of this fund is to provide a source of money for park improvements within the community plan region from which the money was taken. This money is assessed to new developments according to Title 18. Subdivisions 18.16.320 Parks and Playgrounds of the Maui County Code. Another source of funds for bikeway improvements and construction is the Bike Fund. This Fund was established to collect revenue from bicycle

licenses. The revenue is expended for bikeway construction and maintenance. The Bikeway Fund had a budgeted amount of \$300,000 for the 2002/2003 fiscal year. Only \$35,000 is from bicycle licenses, the rest was from interfund transfers.

- (2) Many restrooms and shower facilities have been in place at most beach parks since the 1970's and 1980's. The older of these facilities will need to be refurbished at some point in the near future. The most significant costs will be complete renovations and replacement of existing facilities. One important observation is the lack of changing-room facilities. Most restrooms only have toilets and future buildings should be large enough to accommodate the changing of apparel, at facilities in proximity to the shoreline. A related issue to restroom refurbishment is the lack of toilet facilities. Some parks are in need of toilets (temporary toilets should eventually be replaced with permanent structures) and all high-use parks should have access to drinking water. Some parks, like 'Chang's Beach' lack a sense of permanency and should have permanent trash receptacles, toilets and showers installed. More information regarding specific parks can be found in part 2 of this section.
- (3) South Maui should bring all of its park assets together to form one cohesive system. This report is a first step along this path. The next step should entail the development and promotion of a guiding South Maui Parks and Open Space theme. This theme will be conveyed in all park fixtures, literature, signage as well as in the design of park buildings. Park elements might reflect design or standards already used in some of the South Maui parks. But, an agreed upon set of park standards should be developed and implemented.

The Wailea Community Association (WCA) has standardized signage for its public facilities and parks as well as design guidelines. Although it's park signage is not necessarily 'Hawaiian' in its aesthetic approach, it is consistent and unifies the public elements within the WCA jurisdiction. Kihei-Makena and Maalaea should develop a similar standard, one which might compliment Wailea's but be significantly different in order to reflect the uniqueness of the area. The overall theme should permeate all park amenities. All trash receptacles, benches, picnic tables and other such elements should reflect this theme (i.e. in color and design). There are many precedents to study when developing park standards as most communities have local, state and federal park standards. The City and County of Honolulu would be one very relevant precedent. The theme should promote the South Maui region as the unique and beautiful area that its residents know it to be. It should be noted that the South Maui Parks and Open Space design theme should be developed to be consistent with any existing Department of Parks and Recreation Technical Standards.

#### 8. RECOMMENDED PRACTICES FOR PARK PLANNING

The two key elements within an open space park system are **parks and pedestrian/bicycle corridors**. The following section discusses various design considerations and amenity options available to the park planner. This section includes a discussion of each park type, including precedent photographs, as well as a description of various recommended practices and amenities for consideration by the County when planning such parks and open space areas. Most precedents and amenity examples are from Maui.

#### Park Design Guidelines

A basic principle of designing for a strong <u>sense of community</u> is as follows: Residents will tend to casually meet, recognize each other and identify with a group when that group has access to a portion of the physical environment that is walkable and safe, and for which the group feels some sense of responsibilities. These criteria are met when residences are clustered around some form of shared outdoor space. -"The Neighborhood Approach to Building Community: A Different Perspective on Smart Growth" by Clare Cooper Marcus, Western City Living, March 2001.

#### General Guidelines for Park Design

A key component in the network of open space being proposed for South Maui is the *urban park*. The urban park, for our purposes, will be defined as the Mini-Park and the Neighborhood Park. These two park types recognized by the County of Maui. In addition to these two park types, we should also consider the Plaza or Square as another type of urban park. While this third type of public open space does not yet exists in Kihei, it might become an important element as the area grows and more commercial development occurs.

The **urban** park is generally not larger than 4 typical house lots. Usually, buildings bound it on at least two sides. The purpose of the urban park varies from active recreation areas to passive space. Part of the advantage of using the urban park as a key component in the open space network is its adaptability to include a wide range of interests in a small space. One to four acre parks can accommodate a useful range of active and passive uses for a variety of ages. These smaller parks are also safer, as they are shallow enough for street and residential surveillance and they easily become the informal responsibility of local residents.

The location of smaller urban parks (under 4 acres) should be no more than four blocks from one another, or from an open/green space. This is based on the assumption that residents will not walk more than four blocks (and prefer two) to get to a community park, without crossing a

major roadway.<sup>15</sup> Ideally, there would be such a park within two blocks of any residence.<sup>16</sup> The larger of the neighborhood parks (four to ten acres) should be located near schools or at the perimeter of neighborhood boundaries.<sup>17</sup> This is to facilitate the sharing of recreational equipment.

The program of urban parks should be determined by whatever goes on around the park as well as what is needed by residents in the area. A park near a laundry matt might be popular with pre-school children and a park near the post office might facilitate casual meetings of neighbors. One would have play equipment, the other shade and benches. Resident input can also be solicited through public meetings.

The **boundaries** of urban parks should be clearly defined, separating the public and private. Planted boundaries help contain the activities within the park. Fences and/or barrier planting keep small children in, while keeping dogs out. Attention should be paid to the street-edge boundary. Seating can be incorporated along the street. The elderly often enjoy sitting and observing from a place adjacent to the throughway path. The park can also come out into the street as a visual cue. Paving patterns and seating can work their way onto the sidewalks and even into the parking lane of a nearby street.

Since the nature of the urban park places a premium upon space, the **functional areas** or 'user spaces' should take precedent over the 'visual spaces'. The primary function of the space is to serve the needs of the residents and become an occupied space. Therefore, spaces will not become aesthetic features unto themselves. Instead they should be double-loaded with at least two functions. In this way, aesthetic design decisions also have another practical function (i.e. habitat creation, slope stabilization, barrier plantings, water detention) and vice versa. The usual design elements of the typical urban park include planting/trees, adult seating, play areas for children and group interaction areas.

### Design Considerations<sup>19</sup>

The following illustrations provide an overview of the many elements associated with park and open space design. These are generic considerations, but provide a basis for further, site-specific considerations.

<sup>15</sup> Marcus, Clare Cooper and Corolyn A. Francis, 1990.

<sup>16</sup> Calthorpe, Peter, 1993

<sup>17</sup> Calthorpe, Peter, 1993

<sup>18</sup> Marcus, Clare Cooper, 1990

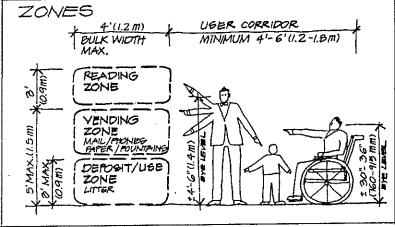
<sup>19</sup> Design Considerations are from Time Saver Standards for Landscape Architecture, Harris & Dines, 1988.

## CONVENIENCE ELEMENTS

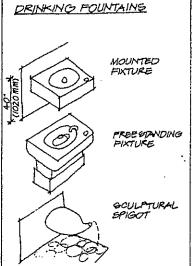
## CONVENIENCE ELEMENTS Convenience elements should be:

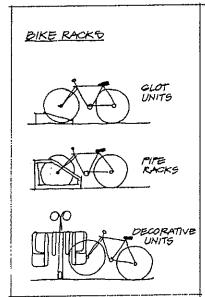
- Easily recognizable.
- Sited to reduce clutter.
- 3. Placed to facilitate easy access.

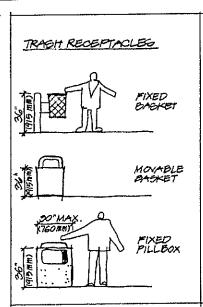
General zones are defined by access requirements.



## GENERIC EXAMPLES





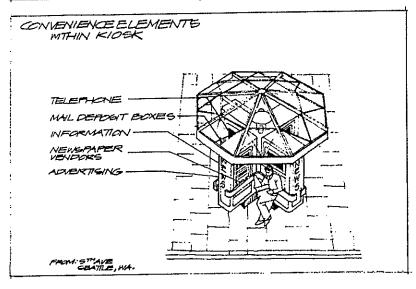


#### CONTEXT

Consolidation of various convenience elements into a single larger structure can enhance the visual character of a site and provide a readily indentifiable feature within a busy streetscape.

Convenience elements include:

- 1. Newspaper vendors
- 2. Telephones
- 3. Information stands
- 4. Mail deposit boxes



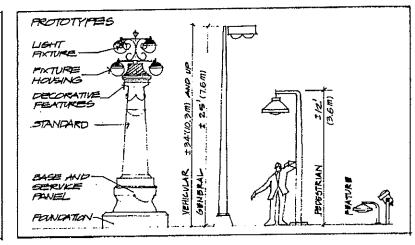
## LIGHTING

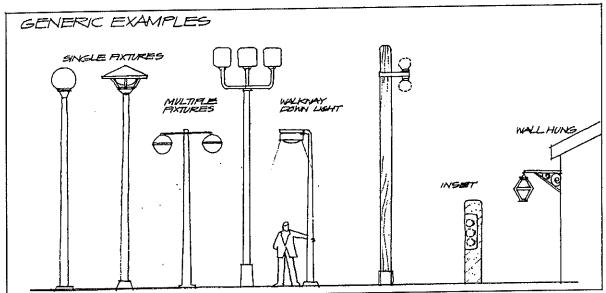
#### LIGHTING

The height of light standards is the single factor that most directly determines the quality of the light and the consequent ambience of the site.

Exterior lighting can be generally categorized as:

- 1. Decorative lighting
- 2. Vehicular use lighting
- 3. General site lighting
- 4. Pedestrian use lighting
- 5. Feature lighting

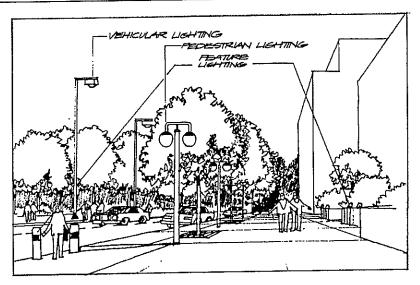




#### CONTEXT

Lighting must be functionally appropriate and properly scaled to both the pedestrian and the vehicular precincts of the site. For pedestrian area lighting, the light source should be relatively low to the ground in order to remain in scale with the human body and to provide light beneath the canopy of street trees. Uniform area illumination is not always desirable.

Vehicular light standards on roadways must have much greater height than those for pedestrians and must illuminate the road more uniformly.



## INFORMATION

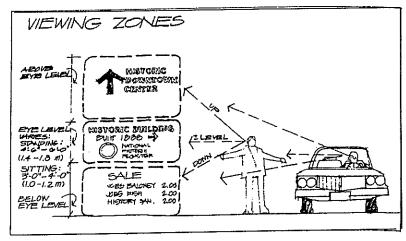
#### INFORMATION

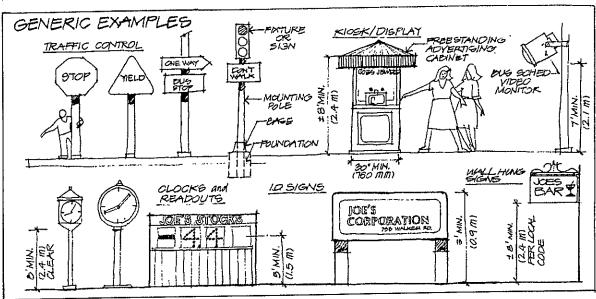
Outdoor information can be grouped into tour categories:

- 1. Directional
- 2. Locational
- 3. Identification
- 4. Display

The information should be formatted and placed within easy view of either the pedestrian or the motorist.

The primary mode of transportation, whether pedestrian or vehicular, will determine the optimum location and size of signs.



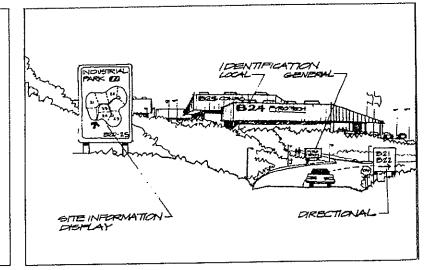


#### CONTEXT

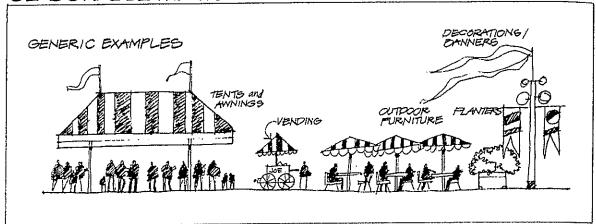
Because of its brief viewing time, signage aimed at vehicular traffic requires an especially clear hierarchy of lettering.

Sites such as industrial parks and suburban office centers, where circulation is exclusively vehicular, are places that require signage for:

- 1. Identification of the area
- 2. Directions within the compound
- Identification of individual facilities within the compound



## SEASONAL ELEMENTS



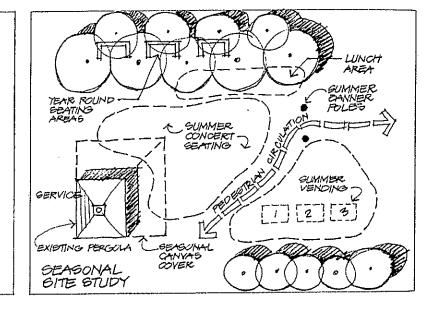
#### SEASONAL ELEMENTS

Seasonal elements can significantly enliven a place. Their appearance signals an event. These elements include:

- 1. Temporary structures
- 2. Vending wagons
- 3. Outdoor furniture
- 4. Planting tubs

#### Seasonal elements:

- 1. Require a flexible site layout.
- Work well when they augment established year-round facilities.
- 3. Should be sited to conform to the basic circulation structure of the site.
- 4. Should be readily visible and accessible.

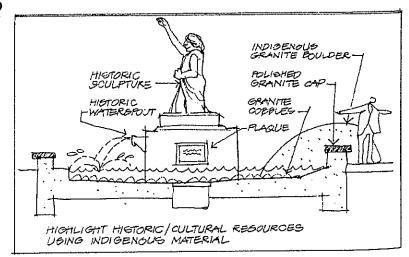


## SPECIAL FEATURES

#### SPECIAL FEATURES

Special features are unique site elements that can be used to commemorate significant cultural and social events for the community. They present a unique opportunity for the designer to incorporate:

- 1. Indigenous materials.
- 2. Local historical resources.
- 3. Local cultural resources.



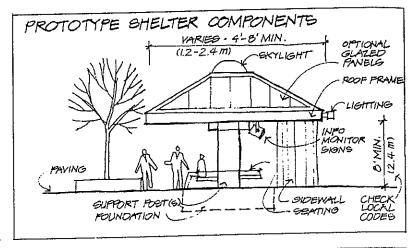
## SHELTER

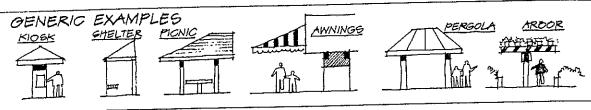
#### SHELTERS

Shelters diversify the use of a site by accommodating elements that require weather protection, such as:

- 1. Graphic displays
- 2. TV monitors

Types of shelters range from very modest structures, such as picnic shelters, to very elaborate structures, such as bandstands.

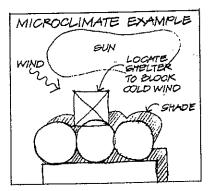


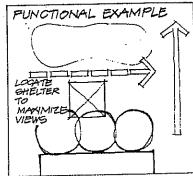


#### SITE OBJECTIVES

Shelters provide:

- 1. Protection against inclement weather.
- A focal point for site activities.
- 3. Transitional areas between outdoors and indoors.



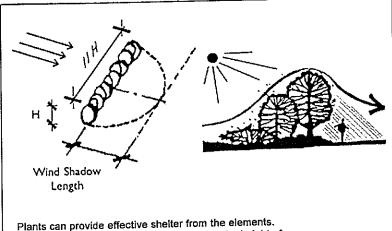


#### CONTEXT

Shelters are often major elements of a site. They can be used as a visual reference to the historical or cultural character of a place. The choice of an appropriate design idiom should reflect an understanding of the social and cultural forces that have given the place its unique identity.

Because shelters often serve as focal points of a site, they should be:

- 1. Readily visible.
- 2. Easily accessible.
- 3. Sited to take advantage of views.
- Sited adjacent to major pedestrian routes.



Plants can provide effective shelter from the elements. Maximum wind protection occurs with a barrier height of 11 to 12 times its height

#### Specific Guidelines For Different Park Types

Mini-Parks are approximately .35 – 1.5 acres in size. They usually serve persons within walking distance (¼ to ½ mile radius) often with tot lots and picnic tables. Mini-parks are small parks or specialized facilities that serve a specific population (e.g., tot lot for preschool children, or horseshoe pits/shuffleboard courts). They have historically been discouraged within public park systems primarily due to maintenance costs and the need for large parks to accommodate sports fields. However, many people would prefer to have a smaller park that is within a few blocks of their homes rather than a larger neighborhood park that may be a half-mile or farther away. Maintenance of these parks can be the responsibility of the subdivision.

The mini-park (sometimes called a 'Pocket Park') has three possible situations: (1) the mid-block park, (2) the through-block park and (3) the corner lot. The mid-block park offers the characteristics of enclosure and protection and possible quietness. It is enclosed on three sides by private lots. Its contact with the street is limited, thereby making it less noticeable to the casual passerby. The through-block mini-park offers a doubling of its function, serving as a through-way space as well as a park. As such, it may take on a more active quality. The corner lot mini-park offers the most contact with the street and therefore the most access. It also has a high degree of visibility and may offer an angled throughway as part of its structure.

The National Recreation and Parks Association (NRPA) offers the following recommendations for the mini-park<sup>20</sup>:

- They are typically 2500 square feet to 1 acre in size, but can be up to 5 acres,
- Used to address limited or isolate recreational needs, Examples include:
  - Concentrated or limited populations



An example of through-block mini-park.

Isolated development areas

<sup>&</sup>lt;sup>20</sup> The mini-park is sometimes referred to as a *vest-pocket* park.

- Unique recreational opportunities
  - o Industrial/commercial areas
  - Scenic overlooks
  - o A play area adjacent to a downtown shopping area,
- Located less than ¼ mile distance in residential settings,
- Offer ease of access from surrounding area, near bike paths or pedestrian corridors,
- Adjacency to other park system components, greenways and the trail system,
- Public input should be a primary determinant of the development of the park program.

Neighborhood Parks are between 1.6 and 10 acres. They serve people within a 1 mile radius and provide facilities such as baseball/soccer fields, tennis courts, etc. These are considered the basic unit of the park system and serve as the recreational and social focus of the neighborhood.<sup>21</sup>

The National Recreation and Parks Association (NRPA) offers the following recommendations for this park type:

- Generally neighborhood parks are not less than 5 acres and ideally 7 to 10 acres,
- They should be developed for both passive and active recreation activities,
- They should be specifically geared to those living within the service area,
- Accommodating a wide variety of age and user groups, including children, adults, the elderly, and special populations, is important,
- Creating a 'sense of place' by bringing together the unique character of the site with that of the neighborhood is vital to a successful design.
- Generally located within the center of its service area,
- The site should be accessible throughout its service area via interconnecting trails, sidewalks or low-volume residential streets,
- A linkage to a greenway is a key concern in located the neighborhood park,
- Ease of access and walking distance are critical factors in locating neighborhood parks,
- Frequently, neighborhood parks are developed next to elementary schools,
- "Left-over" parcels of land that are undesirable for development are generally undesirable for neighborhood parks as well and should be avoided,
- It is more cost effective to select a site that has inherent aesthetic qualities rather than attempting to create them,
- Given the importance of location, neighborhood parks should be selected before a subdivision is platted and acquired as part of the development process,
- Since each neighborhood in a community is unique, neighborhood input should be used to determine the development of the program for the park,
- A general 'rule of thumb' is to allow for 50% active and 50% passive areas.

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<sup>&</sup>lt;sup>21</sup> NRPA, p.98, 1996



An example of a neighborhood park.

## Plazas / Squares

Traditionally, plazas and squares have been located near the center of a community. Normally they are part of the commercial core fabric, offering spaces for workers to enjoy the outdoors during the workday. The key to the success of these spaces is that they are situated at the heart of the surrounding community. The heart should be the place of greatest activity and public programming (outdoor entertainment, street performers, markets, etc.). The plaza / square is situated to attract a multitude of different users. Part of their democratic nature is their tendency to be occupied by a cross-section of society. The size of these spaces varies, but are typically less than one acre.

Exposure to pedestrian traffic is essential to the success of these parks. Successful parks have at least two sides exposed to pedestrian traffic. Boundaries of the plaza/square should incorporate as much retail as possible (cafes, restaurants, etc.). Edges of the space should encourage seating. Creating 'ins' and 'outs' along the perimeter will maximize the edge space. Walls and stairs can also be designed to encourage seating. In this way, the plaza /square will not appear empty when not in use. The design of these spaces should include open areas where programmed activities can take place.

Some other ideas for the successful creation of plazas and/or squares:

- incorporate the outdoor café with removable seating and tables,
- portable vending and concession stands,
- theatrical performances with portable stage space,
- space for large public gatherings that do not interrupt pedestrian flow,

- outdoor passive pursuits (reading, checkers, reclining, conversing, people watching, eating),
- some type of focal point which allows for user interaction (water fountain, shallow pool)
- temporary installment space (for public art or information displays),
- allow for easy pedestrian circulation through the space.



A small plaza/courtyard space at the Maui Arts and Cultural Center.

**District Parks** are the largest sub-regional parks. They are 10-40 acres in size, serve users in a 30 minute radius and provide larger facilities, such as recreation centers, gymnasiums and pools. These are the largest park type within Maui, at the sub-regional level. District parks are focused on meeting the recreational needs of the larger community. They allow for group recreation not feasible or perhaps desirable within neighborhood parks.

The National Recreation and Parks Association (NRPA) offers the following recommendations for this park type:

- Demographics, population density, resource availability and recreation demand within its service area are determinants of the park's size,
- An optimal size is 20 to 50 acres,
- · A district park should serve two or more neighborhoods,
- The site's natural character should play a very large role in site selection,
- Ease of access from throughout the service area is important,
- The park's location should be geographically centered within its service area,
- Its relationship to other parks in the service area is also important to site selection,
- Neighborhood and community input through public process should help to determine the parks' program.

Linear Parks are linear public green spaces. Within an urban setting, the linear park can take the form of a streetscape park with traffic calming, planting, pedestrian and bicycle paths. It can also be a natural connection along a gulch or stream. The park system should incorporate the

linear park into a dendritic pattern, threading together the various open spaces into a coherent system.

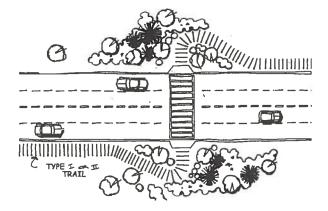
These types of park components can facilitate pedestrian traffic, cyclists, hikers, joggers, commuters, rollerbladers, equestrians and can serve to connect neighborhoods, as interpretation features or as habitat enhancement projects. They represent the vital connection between parks, open space and community resources and facilities, such as schools and community centers.





Before and after photographs of an urban streetscape-as-linear-park in Washington D.C. -from Landscape Architecture Magazine September, 2002. "Creating Safety" by Lisa Speckhardt and Jennifer Dowdell.

The Linear Park should incorporate pedestrian and bicycle traffic. This example shows how a multi-use path meets the roadway for a mid-block crossing.



### Greenways

The best official account of the greenway idea comes from the President's Commission on Americans Outdoors. It called for:

"A Living Network of Greenways... to provide people with access to open spaces close to where they live, and to link together the rural and urban spaces in the American landscape ... threading through cities and countrysides like a great circulating system" - (President's Commission on Americans Outdoors 1987).

The term 'greenway' was formed by joining greenbelt to parkway. It embraces a wide range of concepts drawn from the history of linked open space.

"Greenways are networks of land containing linear elements that are planned, designed and managed for multiple purposes including ecological, recreational, cultural, aesthetic or other purposes compatible with the concept of sustainable land use." -(Ahern 1995).

"Comprehensive Greenway Systems, or networks, are usually based on natural landforms such as valleys and ridges but sometimes simply an opportunistic assemblage of greenways and open spaces of various kinds to create an alternative municipal or regional green infrastructure" - (Greenways for America, 1990)

Land availability and opportunity are the primary factors determining location. Natural greenways follow suitable natural resource areas and man-made greenways are usually built as part of development projects<sup>22</sup>. Since greenways are the preferred way to get people from their homes and into parks, adjacency to development areas and parks is important. Corridor width can be as little as 25 feet in subdivisions and as wide as 200 feet in open areas.

Trails are off-street transportation and recreation systems for bicycling, jogging, walking, and equestrian use. Trail systems should also be used to connect various activities within the Town, such as subdivisions, business and commercial areas, schools, and other park sites. Off-street parking shall be provided for trail access where appropriate.

Trails can be divided into two groups; park trails and connector trails. In general, there are four steps in the process of establishing a functioning trail system.

- 1. Prepare a comprehensive park and trail system plan that defines the trail routes.
- 2. Acquire the desired land or establish trail easements at an early stage of community development.

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<sup>22</sup> There is no provision in the Maui County code to allow the subdivider of a residential project to gain park dedication credit for publicly accessible 'Greenway' corridors., although it is not specifically ruled-out.

- 3. Establish appropriate development policies (backed by ordinance) requiring new subdivisions to dedicate land for park trails in accordance with the park and trail system plan.
- 4. Establish design standards that define how park trails are to constructed. Trail design should coincide with standards adopted by local and state department of transportation and AASHTO (American Association of State Highway Transportation Organization), as appropriate. Trails should also comply with the Americans With Disabilities Act.

Park Trails are multipurpose trails located within greenways, parks and natural areas. They are the most desirable type of trail because;

- They allow for relatively uninterrupted pedestrian movement to and through the city's park system and development areas, including commercial and industrial areas,
- They tie various parks and recreation areas together to form a comprehensive park and trail system.
- They protect users from urban development and associated vehicular traffic.

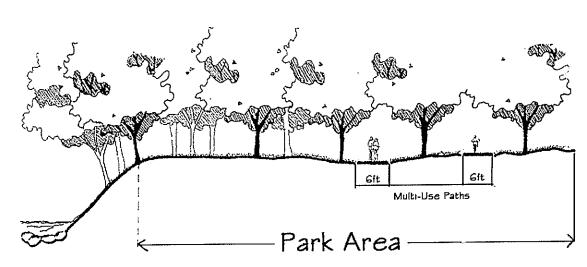
There are three recognized trail types recognized by the National Recreation and Park Association. These will accommodate pedestrians, cyclists and in-line skaters<sup>23</sup>.

- <u>Type I</u> trails are used in situations separate paths are necessary for cyclists/in-line skaters and pedestrians. An example would be a high-use waterfront trail.
- <u>Type II</u> trails are more suited to lighter use. An example would be a trail through a housing development to a school.
- Type III trails are located in minimum impact areas, such as nature preserves.

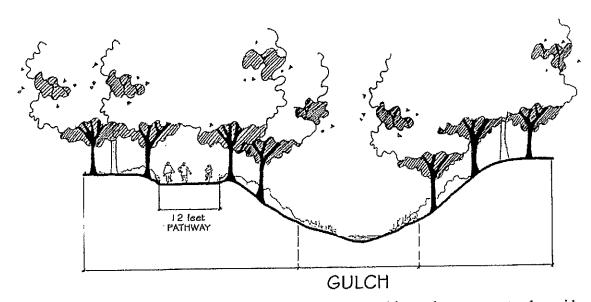
Connector Trails are trails that function as linkages between different open space elements. As opposed to park trails, these trails are more utilitarian and emphasize safe travel. These trails can be located in existing road rights-of-way, along utility easements or along drainage ways. There are two types of connector trails.

- <u>Type I</u> trails are used in situations where separate paths are necessary for cyclists and pedestrians. An example would is a trail within the shoulder right-of-way of a collector street.
- <u>Type II</u> trails are suited to lighter use, such as a link between a collector road and a housing development.

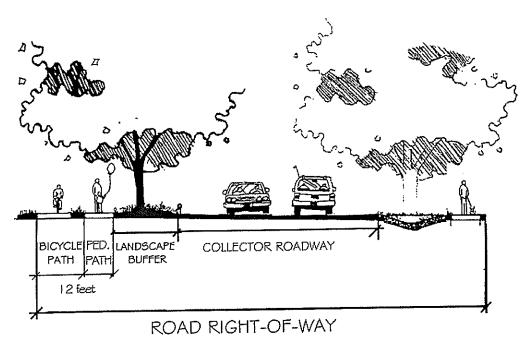
<sup>23</sup> The Upcountry Greenway Plan has trail types that accommodate horses.



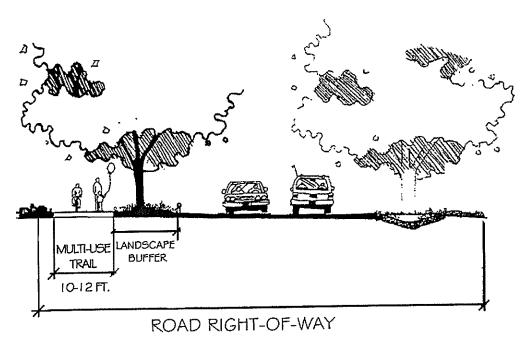
In park areas, Greenways become part of the park trail system. This is an example of a Park Trail Type I.



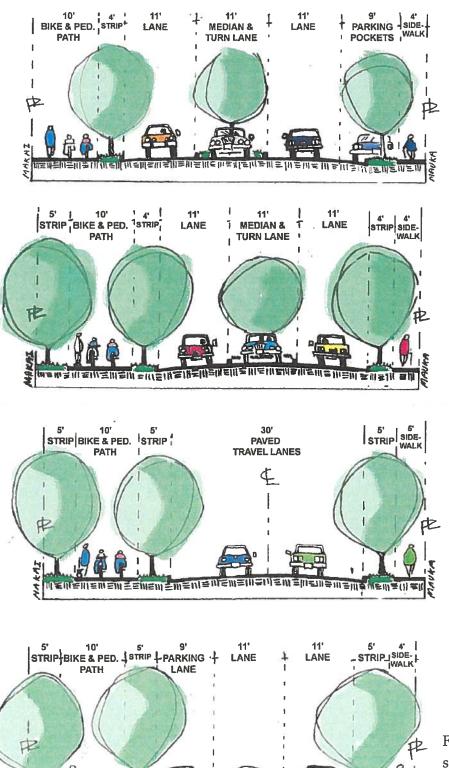
Public bicycle and pedestrian corridors can be incorporated in to the easements alongside the gulches that run through South Maui. This is an example of Park Trail Type II.



Typical separated bicycle and pedestrian trail running alongside a roadway. This is an example of a Connector Trail Type I.



Typical Connector Trail Type II within a road right-of-way. This trail is for lighter travel than a Connector Trail Type I. This type of trail might be used to connect main trail routes to nearby housing areas.



Four recommended scenarios for the 60-foot North-South Collector right-of-way.

	BY SITE NUMBER	SHEET NUMBER		BY SITE NAME	SHEET NUMBER
1	KALAMA BEACH PARK (& COVE PARK)	4	64A	AHIHI-KINAU NATURAL, AREA RESERVE	7
2	KAMAOLE BEACH PARK I	4	64B	AHIHI-KINAU NATURAL AREA RESERVE	7
3	KAMAOLE BEACH PARK II	4	21	BALDWIN - MALAMA BASIN / SOCCER FIELD	3
4	KAMAOLE BEACH PARK III	4	74-84	BEACH ACCESS LOTS	3 & 4
5	KALEPOLEPO BEACH PARK	3	86-87	BEACH ACCESS LOTS	4
6	KIHEI MEMORIAL PARK (MAPOINA OE LAU)	3	91,92,93,9	7 BEACH ACCESS LOTS	5 & 6
7	KENOLIO RECREATION COMPLEX	3	55	BLACK SAND BEACH (ONEULI)	6
8	KILOHANA PARK	4	52	CANOE CLUB SITE	3
9	POOLENALENA PARK (CHANG'S)	5	72	CANCE CLUB SITE	2
10	CHARLEY YOUNG PARK	4	10	CHARLEY YOUNG PARK	4
11	MAALEA BEACH PARK	2	70	COASTAL ACCESS	2
12	KENOLIO PARK	3	14	HALE PIILANI SUBDIV, PARK	3
13	KIHEI BEACH RESERVE (WAIPUILANI PK.)	3	34	KAHOOLAWE ISLAND RESERVE COMMISION	4
14	HALE PIILANI SUBDIV. PARK	3	1	KALAMA BEACH PARK (& COVE PARK)	4
15	KENOLIO PARK (SEWAGE PUMP STATION)	3	5	KALEPOLEPO BEACH PARK	3
16	KEONEKAI PARK	4	30	KAMALII ELEMNTARY SCHOOL	4
17	LEI (HORITA'S) BEACH PARK	3	2	KAMAOLE BEACH PARK [	4
18	MAUI PEACE PARK	4	3	KAMAOLE BEACH PARK II	4
19	KIHEI REGIONAL PARK	4	4	KAMAOLE BEACH PARK III	4
20	KIHEI COMMUNITY & AQUATIC CENTERS	3	22	KAMOLE POINT	4
21	BALDWIN - MALAMA BASIN / SOCCER FIELD	3	73	KEALIA POND	2
22	KAMOLE POINT	4	71	KEALIA POND WILDLIFE REFUGE BOARDWLK	2
23	KILOHANA DRIVE & WAILEA FIRE STATION	4	12	KENOLIO PARK	3
24	MAKENA LANDING	6	15	KENOLIO PARK (SEWAGE PUMP STATION)	3
25	MALUAKA BEACH PARK (MAUI PRINCE)	6	7	KENOLIO RECREATION COMPLEX	3
26	PALAUEA BEACH PARK	5	16	KEONEKAI PARK	4
27	KIHEI CHARTER SCHOOL	3	13	KIHEI BEACH RESERVE (WAIPUILANI PK.)	3
28	KIHEI ELEMENTARY	3	33	KIHEI BOAT RAMP	4
29	LOKELANI INTERMEDIATE SCHOOL	3	27	KIHEI CHARTER SCHOOL	3
30	KAMALII ELEMNTARY SCHOOL	4	20	KIHEI COMMUNITY & AQUATIC CENTERS	3
31	MAKENA-ONELOA PARK (BIG BEACH)	6	98	KIHEI COMMUNITY PARK (PROPOSED)	3 & 4
32	SMALL BEACH	6	28	KIHEI ELEMENTARY	3
33	KIHEI BOAT RAMP	4	6	KIHEI MEMORIAL PARK (MAPOINA OE LAU)	3
34	KAHOOLAWE ISLAND RESERVE COMMISION	4	19	KIHÆI REGIONAL PARK	4 4
35-50	STATE BEACH RESERVE	3 & 4	23	KILOHANA DRIVE & WAILEA FIRE STATION	4
51	REGULATION RESERVOIR	3	8	KILOHANA PARK	3
52	CANOE CLUB SITE	3	17	LEI (HORITA'S) BEACH PARK	7
53	POOLENALENA PARK (CHANG'S) -SEE #9	5	99	LIGHTHOUSE SITE	3
54	SHORELINE ACCESS	6	29	LOKELANI INTERMEDIATE SCHOOL	2
55	BLACK SAND BEACH (ONEULI)	6	11	MAALEA BEACH PARK	5
56	MAKENA-ONELOA STATE PARK - SEE #31	6 7	91	MAKENA BCH ACCESS #104	6
64A	AHIHI-KINAU NATURAL AREA RESERVE	7	24	MAKENA LANDING	6
64B	AHIHI-KINAU NATURAL AREA RESERVE	7 7	31	MAKENA-ONELOA PARK (BIG BEACH)	6
55-69	STATE OF HAWAII	7	56	MAKENA-ONELOA STATE PARK -SEE #31	6
70	COASTAL ACCESS	2	25	MALUAKA BEACH PARK (MAUI PRINCE.)	4
71	KEALIA POND WILDLIFE REFUGE BOARDWLK	2	18	MAUI PEACE PARK	5
72	CANOE CLUB SITE	2	26	PALAUEA BEACH PARK	4
73	KEALIA POND	2 2 2 4	101	POLICE AND FIRE	5
74-84	BEACH ACCESS LOTS	3 & 4	90	POLO BEACH ACCESS	5
36-87	BEACH ACCESS LOTS	4	9	POOLENALENA PARK (CHANG'S)	5
85	PUBLIC PARKING (KEAWAKAPU BEACH)	<u>4</u>	53	POOLENALENA PARK (CHANG'S) - SEE #9 PUBLIC PARKING (KEAWAKAPU BEACH)	4
88	WAILEA BEACH PARK ACCESS	5	85 51	~·····	3
89	WAILEA BEACH ACCESS COASTAL WALK	5	51 54	REGULATION RESERVOIR	6
90	POLO BEACH ACCESS	5	54	SHORELINE ACCESS	6
91	MAKENA BCH ACCESS #104	5	32	SMALL BEACH	3 & 4
92,93,97	BEACH ACCESS LOTS	5 & 6	35-50	STATE BEACH RESERVE	7
98	KIHEI COMMUNITY PARK (PROPOSED)	3 & 4	65-69	STATE OF HAWAII	5
99	LIGHTHOUSE SITE	7	89	WAILEA BEACH DARK ACCESS	5
100	WHALE SANCTUARY SITE	3	88	WAILEA BEACH PARK ACCESS	3

MAP AREA	4
INVENTORY SITE #	1



(includes Cove Park)

Location: TMK 3-9-05:02

AREA: 36.49 Acres

PARKING: 168 Standard Stalls

7 Handicap Stalls

FACILITIES: 14 BBQ Pits

2 Scoreboards
27 Picnic Tables
4 Basketball Courts
4 Tennis Courts
4 Baseball Fields
12 Benches
Skateborad Park

Bike Racks Gazebo

In-Line Skating Rink

Jungle Gym

Pavillion w/ tables/kitcher

Tot Lot Washrooms 2 Soccer Fields

Phones

OTHER: Little League Storage



#### **COMMENTS & RECOMMENDATIONS:**

No drinking fountains.

Many mature trees provide good shade.

Access to stream blocked by fencing.

No showers.

No ocean access over revetment.







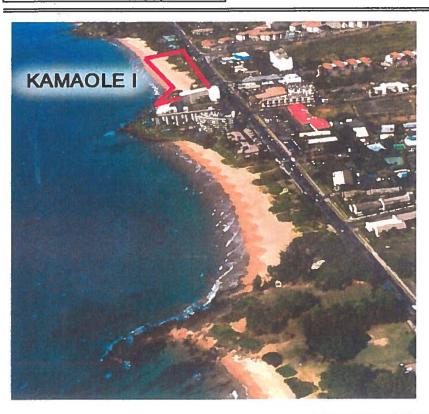
# KALAMA PARK COMMENTS & RECOMMENDATIONS CONTINUED:

Kihei Comm	unity Association Recommendations
Senior Field	
a.	Install new lights on portions of field for greater use \$120,000
b.	Repave parking lot with new asphalt and put on seal coating schedule
c.	Replace drip irrigation with above ground system
Park Area	
a.	Shade structure for playground area \$37,000
b.	Replace existing fresh water lines
C.	Add new maintenance gate at South end of parking lot
d.	Wall up old North access to park
e.	Design and build a scenic drainage canal area \$70,000
f.	Replace South wooden tables with tile block and wood tables
g.	Secure pavilion building
h.	Add dumpster rock walls
i	Add mature trees with drip irrigation
	Add reclaimed water distribution and local water irrigation system

MAP AREA	4
INVENTORY SITE #	2

Park Name: Kamaole Beach Park I

Location: TMK 3-9-05:30



AREA: 2.983 Acres

PARKING: 21 Standard Stalls

3 Handicap Stalls

FACILITIES: 1 Volleyball Court

6 Picnic Tables Washroom

2 Drinking Fountains

5 BBQ Pits 3 Showers Public Phone

**OTHER: Lifeguard Station** 

#### **COMMENTS & RECOMMENDATIONS:**

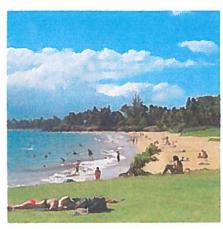
Fully accessible beach for the disabled Sand Wheelchair available County parking across S.Kihei Rd. Mature Shade Trees Add reclaimed water distribution & irrigation systems

### Kihei Community Association Recommendations:

Automatic External Difberlators \$4000
Pave parking lot with new asphalt
Install parking lot speed bumps
Enlarge across the street parking area to full size gravel lot
Add dumpster rock walls

Add mature trees with drip irrigation

Add new life guard stand



MARCH 2003



	MAP AREA	4	_
I	INVENTORY SITE #	3	

Park Name: Kamaole Beach Park II

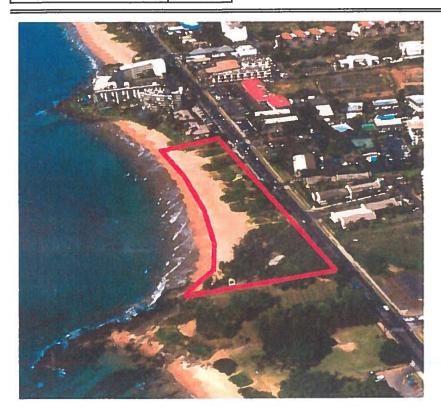
Location: TMK 3-9-5:29



PARKING: 24 On-street

FACILITIES: 3 Picnic Tables

2 BBQ Pits Public Phone **Drinking Fountain** 



OTHER: 4 Trash Cans

Wooden steps to beach

#### **COMMENTS & RECOMMENDATIONS:**

Shade trees concentrated at on end of the park Automatic External Difberlators \$4000 Drinking fountain was not functional Crosswalks at North end and middle 1 wheelchair accessible picnic table Add reclaimed water distribution and local automatic irrigation systems

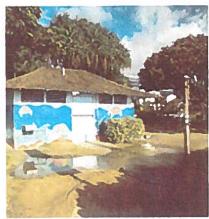
Kihei Community Association Recommendations:

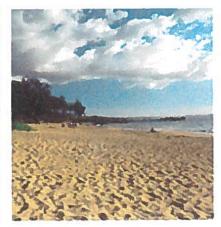
Add irrigation to North end of park Replace sand paths with board walk accesses to beach Add dumpster rock walls

Add life guard station

Add mature trees with drip irrigation







MAP AREA	4
INVENTORY SITE #	4

Park Name: Kamaole Beach Park III

Location: TMK 3-9-04:48



AREA: 11.21

PARKING: 60 Standard Stalls

6 Handicap Stalls

FACILITIES: 25 Picnic Tables

7 BBQ Pits Washroom 2 Portable Toilets Lifeguard Station

Swings

Drinking Fountain Public Phone 2 Accessible Picnic Tables

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Kihei Community Association Recommendations

Automatic External Difberlators \$4000

Add reclaimed water distribution and local automatic irrigation systems \$55,000

Install new playground equipment to current safety standards \$41,000

Install shower drain controls \$7,000

Remove old playground equipment

Replace sand path accesses to the beach with board walks







# KAMAOLE III PARK COMMENTS & RECOMMENDATIONS CONTINUED:

Kihei Community Association Recommendations Continued Level and seed current drainage ditches and swales

Repave parking lot wit new asphalt and place on seal coating schedule

Install parking lot speed bumps

Add telephone line to storage area

Add dumpster rock walls

Add life guard station

Add mature trees with drip irrigation

MAP AREA	3
INVENTORY SITE #	5

Park Name: Kalepolepo Beach. Park

Location: TMK 3-9-01:147



AREA: 1.494 Acres

PARKING: 12 Standard Stalls

FACILITIES: 4 Picnic Tables

3 BBQ Pits 1 Shower

1 Portable Toilet

OTHER:

### **COMMENTS & RECOMMENDATIONS:**

Adjacent to Whale Sanctuary (Marine Education Center)
Adjacent to fish pond
BBQs are in need of repair or replacement
Very well shaded park and parking area
A connection to and through the Whale Sanctuary to other parcel is desirable
Add reclaimed water distribution and local water irrigation system - KCA Recommendation







MAP AREA	3
INVENTORY SITE #	6

Park Name: Maipoiina Oe Lau Park

Location: TMK 3-9-01:25

AREA:

5.3 Acres

PARKING: 8 Off-street

10 to 15 on-street unpaved

FACILITIES: Washrooms

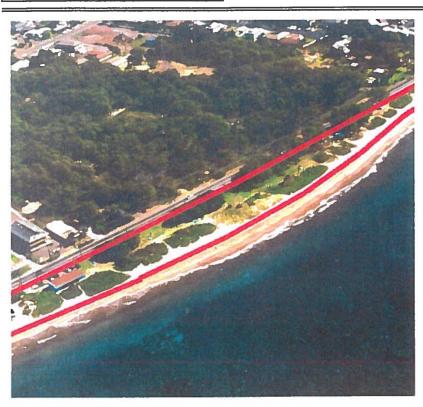
Pavillion/Shelter with electricity

5 Picnic tables 5 BBQ Pits

1 Shower

1 Portable Toilet

OTHER:



#### **COMMENTS & RECOMMENDATIONS:**

Parking area is hazardous when backing out onto S.Kihei road.

Plenty of mature shade trees

Toilets in need of refurbishing

Kihei Community Association Recommendations

Replace wood picnic tables with hollow block, concrete tables

Add dumpster rock walls

Add parking and mature trees and drip irrigation







**Facilities Inventory** 

MAP AREA	3
INVENTORY SITE #	7

Park Name:

**Kenolio Recreation Complex** 

Location: TMK 3-9-06:11

AREA:

4.36 Acres

PARKING: 110 Standard Stalls

2 Handicap Stalls

FACILITIES: Washrooms

1 Multi-purpose Field

1 Basketball court

1 Picnic table

1 Bicycle rack

Public phone

**OTHER:** Community Center

Youth Center Bldg Parks Dept. Bldg

Multi-purpose Rooms

**Community Garden** 

Cafeteria



Plenty of mature trees for shade

The Kenolio Recreation Complex includes the Kihei Youth Center as well as the Kenolio Community Center.







MAP AREA		4
INVENTORY	SITE#	8

Park Name: Kilohana Park Location: TMK 2-1-08:97

AREA: 12.895 Acres

PARKING: On-street available

FACILITIES: Soccer field (with nets)

3 Picnic Tables2 BBQ Pits1 Portable Toilet



OTHER:

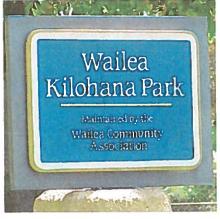
### **COMMENTS & RECOMMENDATIONS:**

Nice shade area from mature trees

A trail connection from Kapili St to Wailea Alanui Dr through the park would connect nearby residents with the proposed North-South Collector.

A rest area with a bench along or near Kapili St would take advantage of the Western view.

The site is large enough for a Community Center.







MAP AREA	5
INVENTORY SITE #	9 & 53

Park Name: Poolenalena / Chang's Beach

Location: TMK 2-1-07:84 TMK 2-1-07:72

AREA:

#53 2 Acres #9 2.765 Acres

PARKING: 24 unmarked

FACILITIES: 1 Portable Toilet 2 Trash Cans



OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Parking area is only partially paved

Noticeable lack of facilities for a beach park parcel of this size and popularity.

Kihei Community Association Recommendations

Add reclaimed water distribution and local irrigation systems

Pave parking lot

Install post and rail fence

Install restrooms

CONTINUED ON NEXT PAGE







## POOLENALENA PARK RECOMMENDATIONS CONTINUED

Kihei Community Association Recommendations
Install an outdoor shower
Add picnic tables
Add trash containers
Install sand volleyball court
Add dumpster rock walls
Add mature trees and drip irrigation

SEE PART III - C - e (P.43) OF KIHEI-MAKENA COMMUNITY PLAN CONCERING FURTHER RECOMMENDATIONS FOR "CHANG'S BEACH"

**Facilities Inventory** 

MAP AREA	4
INVENTORY SITE #	10

Park Name: Charley Young Beach

Location: TMK 3-9-05:32



AREA: 3 Acres

PARKING: 4 Loading Only

20-25 Approx. Stalls

FACILITIES: 1 Shower

3 Picnic Tables 2 BBQ Pits 4 Benches

3 Portable Toilets

OTHER: Stairway to Beach Trash Can

#### **COMMENTS & RECOMMENDATIONS:**

County parking lot at S. Kihei Rd and Kaiau Place has approx. 40 stalls

Add reclaimed water distribution and local irrigation systems.-Kihei Comm. Assoc. Recommendation







**Facilities Inventory** 

MAP AREA	2
INVENTORY SITE #	11

Park Name: Maalaea Beach Park Location: TMK 3-8-05:32

AREA:

0.65 Acres

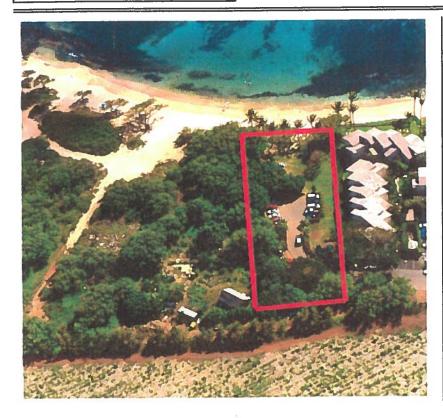
PARKING: 10 Standard Stalls

0 Handicap Stalls

FACILITIES: 2 Concrete Picnic Tables

2 BBQ Pits 1 Shower

1 Portable Toilet



OTHER:

### **COMMENTS & RECOMMENDATIONS:**

Camping is adjacent. Community Garden is adjacent. Very shady.







MAP AREA	3
INVENTORY SITE #	12

Park Name: Kenolio Park Location: TMK 3-8-77:04

AREA:

2.806 Acres

PARKING: 9 On-Street Stalls

0 Handicap Stalls

FACILITIES: Washrooms

Baseball Backstop

2 Soccer Goals

Water Fountain (broken) Baseball / Soccer Field



OTHER:

### **COMMENTS & RECOMMENDATIONS:**

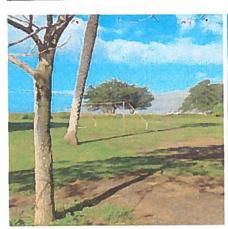
Limited shade available

Grass on the soccer field is patchy in areas.

Seating areas, under shade, would be beneficial to spectators during soccer or baseball games.

A pthway through the park connecting S. Kihei Rd to the Kihei Villages area

#### CONTINUED ON NEXT PAGE







# KENOLIO PARK COMMENTS & RECOMMENDATIONS CONTINUED:

Kihei Community Association Recommendations

Develop[ north end of park to natural grass area

Add an 8 foot path in park

Add trees on South Kihei Road parking area with a curb

Add picnic tables and benches near playing fields

Pave existing Kihei Road parking area with a curb

Add dumpster rock walls

Add mature trees and drip irrigation to general park areas

Relocate Kihei Road traffic to Kenolio Park

Remove current hard surface except for small parking areas at each end of beach

Remove current park/Kihei Road fence

Create master plan for current park needs

Replace old buildings to meet new master plan

Replace previous playground equipment \$41,000

Replace Existing fresh water lines

Add reclaimed water distribution and local irrigation systems

Create a beach park

MAP AREA	3
INVENTORY SITE #	13



or Waipuilani Park

Location: TMK 3-9-01:01



20.22 Acres

PARKING: 17 Standard Stalls

**FACILITIES: 4 Tennis Courts** 

1 Washroom

1 Volleyball Court



OTHER: Open grass areas

#### **COMMENTS & RECOMMENDATIONS:**

No Water Fountains

More signage for public access to tennis courts is needed.

A continuous path throughout this area is needed. Perhaps as part of the Coastal Heritage Trail.

Washroom at South end of parcel is in need of refurbishment.

Siuth end of parcel is a preferrable location for a pavillion-type structure with washrooms, seating areas, etc.







# WAIPUILANI PARK COMMENTS & RECOMMENDATIONS CONTINUED:

Kihei Community Association Recommendations

Establish South line of site

Move parking lot to South side of property

Install an outdoor shower

Add dumpster rock walls

Add mature trees and drip irrigation

Develop a design for the [undeveloped part of the parcel.]

Design [the north end] as a Youth Ocean / Nature Site

MAP AREA	3
INVENTORY SITE #	14

Park Name: Hale Piilani Subdiv. Park

Location: TMK 3-8-04:31



AREA: 2 Acres

PARKING: 11 Standard Stalls 0 Handicap Stalls

FACILITIES: 1 Basketball Court

Tot Lot

Drinking Fountain

Multi-Purpose Play Field

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

This park is in need of some shaded seating areas as well as as some shade trees planted around the play equipment.

(1) Add bbq pit next to picnic table (2) shade the playground equipment (3) Put benches by the playground equipmetn (4) Put hibiscus hedge along the fence (5) Add dumpster rock walls (6) Add mature trees (7) Add new larger size water supply.- Kihei Comm. Assoc. Recommendations







**Facilities Inventory** 

MAP AREA	3
INVENTORY SITE #	15

Park Name: Kenolio Park

Location: TMK 3-8-77:4,11



AREA: 0.8 Acres

PARKING: None

FACILITIES: Sewer Pump Stattion

OTHER:

## **COMMENTS & RECOMMENDATIONS:**

Plant material is on the inside of the chainlink fence surrounding the building. Other pump stations have the plant material on the outside of the fence.





MAP AREA	4
INVENTORY SITE #	16

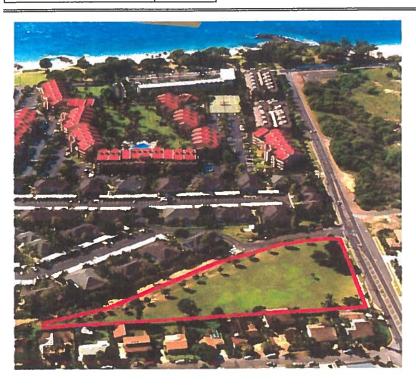
Park Name: Keonekai Park Location: TMK 3-9-04:148

AREA: 2.38

PARKING: None Designated

6 Informal Spaces

FACILITIES: Trash Can



OTHER: Large grass area

#### **COMMENTS & RECOMMENDATIONS:**

Well-maintained perimeter of mature shade trees. Nicely shaded areas near the roadway. Views North. This park will be adjacent to the future North/South Connector (pedestrian/bike) Corridor. A re-design of the park could incorporate facilities for small neighborhood gatherings, a "Village Green". A small covered area for programmed events could be part of this design. Washroom facilities might not be necessary if the park is to be used primarily by residents in walking distance to their homes.

Add reclaimed water and irrigation, add playground equipment (\$41,000), add mature trees and drip irrigation -- Kihei Communty Association Recommended



MARCH 2003





MAP AREA	3
INVENTORY SITE #	17

Park Name: Lei Park (Horita's)

Location: TMK 3-9-01:15



AREA: 2.508 Acres

PARKING: 6-8 On-street

FACILITIES: None

OTHER:

### **COMMENTS & RECOMMENDATIONS:**

Adjacent to Whale Sanctuary (Marine Education Center)

Potential for boardwalk path construction through existing treed area, without levelling the terrain.

Potential for pedestrian connection from future 'greenway' path on mauka-side of S.Kihei Rd.

Pathway connection through this park to Whale Sanctuary, along Coastal Haritage Trail.

Possible picnic, bbq, bench area North of stream outlet at edge of beach.

Parallel parking should be extended South along the roadway. More parking may be possible at corner parking lot of Kaonoulu and S.Kihei Rd.





# LEI PARK COMMENTS & RECOMMENDATIONS CONTINUED:

Kihei Community Association Recommendations

Fill low areas and holes in park

Seed park

Clear area of dead trees, low branches, and other dead vegetation

Add picnic tables and Bar-B-Ques

Add trash can holders

Add required signs

Add dumpster rock walls

Add mature trees and drip irrigation

MAP AREA	4
INVENTORY SITE #	18

Maui Peace Park(Kam III) Park Name:

Location: TMK 3-9-04:Por. of 01 & 61

AREA:

5.35 Acres

PARKING: 20-25 On-street

30+ At dirt lot (south)

FACILITIES: None



OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Plans exist to establish a Kihei youth canoe program at this location.

Plans exist by the Rotary Club for future improvements

Area needs to be designed to include common park amenities and shade trees.

### Kihei Community Association Recommendations

Create a design for this area in cooperation with State boat ramp plans

Clear old and misplaced vegetation

CONTINUED ON NEXT PAGE



**MARCH 2003** 



# PAEACE PARK COMMENTS & RECOMMENDATIONS CONTINUED:

Kihei Community Association Recommendations Continued

Replace construction hard pan with top soil and grass

Add palm tree clusters and mature shade trees on coast line

Add low growing hedge row at South Kihei Road

Add benches, picnic tables, and Bar-B-Que grills

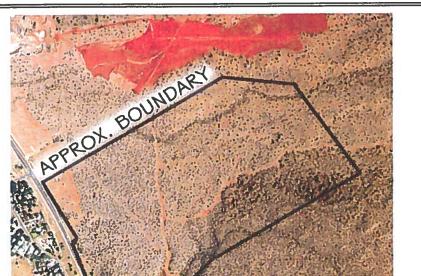
Add trash can holders

Add mature trees to general park area with drip irrigation

MAP AREA	4
INVENTORY SITE #	19

Park Name: Kihei Regional Park

Location: 2-2-02:1



AREA:

150 Acres

**PARKING: None** 

FACILITIES: None

OTHER:

### **COMMENTS & RECOMMENDATIONS:**

Kihei Community Association Recommendations Add South Maui Parks equipment shed

SCHOOL

Add equipment and tool building

Secure a 2' topographic map for a design team

Create alternative designs for community review.







MAP AREA	3
INVENTORY SITE #	20

Park Name: Kihei Community Center and Aquatic Center Location: TMK 2-2-24:23

AREA:

9 Acres

PARKING: 180 Standard Stalls

12 Handicap Stalls

FACILITIES: Comm. Center

Large meeting hall for 500

2 Small mtg. Rooms

Washrooms Water Fountain Grass courtyard

Kitchen

Aquatic Center
Washrooms
Water fountain
1 Swim. Pool (25M)

1 Swim. Pool (50M) 1 Multi-purpose field

OTHER: Public phone

Bike Racks at pool Perimeter Sidewalk



#### **COMMENTS & RECOMMENDATIONS:**

Well landscaped
Good Views mauka / makai
Across from Kihei Elementary School
Automatic external defiberlators (Pool & Beach Captain) \$8000 -- KCA Recommended
Install new playground equipment -- KCA Recommended







**Facilities Inventory** 

MAP AREA	3
INVENTORY SITE #	21

Park Name: Baldwin-Malama Basin

Location: TMK 2-2-24:20

AREA:

4.14 Acres

PARKING: none

FACILITIES: 2 Soccer Goals



OTHER: Large Grassed Drainage Sump

#### **COMMENTS & RECOMMENDATIONS:**

Isolated and public access is not obvious.

Needs better signage.

Possible connections to future developments.





MAP AREA	4
INVENTORY SITE #	22

Park Name: Kamole Point (GATRI)

Location: TMK 3-9-05:03



AREA: 1.394 Acres

PARKING: None

FACILITIES: None



OTHER: Large lawn area

Old farmstyle house for Community uses (police, etc)

Gazebo

#### **COMMENTS & RECOMMENDATIONS:**

Open grass area in the center of the site. Future interventions could consider using the existing vegetation as shaded areas for park

Kihei Community Association Recommendations: Add reclaimed water distribution and irrigation system Create a design for area Start completion of major design elements Add mature trees with drip irrigation





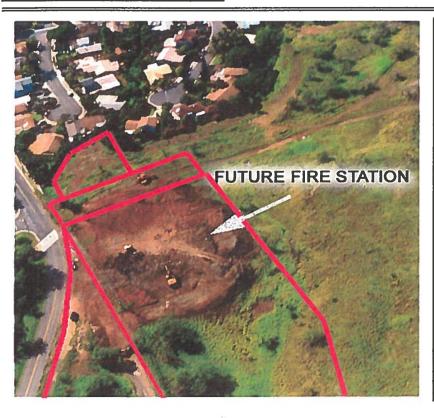
**Facilities Inventory** 

MAP AREA	4
INVENTORY SITE #	23

Park Name: Kilohana Drive

Wailea Fire Station

Location: see below



TMK 3-9-38 Por. of 28 Lot 23A-2 TMK 3-9-38 Por. of 2 Lot 1-A-1 TMK 3-9-38 Por. of 28 Lot 14-B

AREA: 5.752 Acres

PARKING: None

FACILITIES: None

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Wailea Fire Station Location
Park site is entirely undeveloped other than Wailea Fire Station site.

Bicycle path a possibility along back of houses connecting Kapili St to Kauhale St.





MAP AREA			6
INVENTORY	SITE	#	24 54 97

Park Name: Makena Landing

Location: TMK 2-1-07:10, 94, 83



#24 - TMK 2-1-07: 10 (0.19 Acres) #54 - TMK2-1-07:83 (0.112 Acres) #97 - TMK 2-1-07:94 (1.918 Acres)

PARKING: 15-20 Standard Stalls

at Site #97

FACILITIES: Washroom (Site #97)

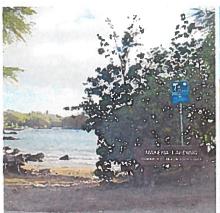
Shower (Site #97)



OTHER: Boat Luanch

#### **COMMENTS & RECOMMENDATIONS:**

Hawaiian' rock wall encloses washrooms Cultural signage - "South Maui Heritage Corridor" Minimal landscaping Phone line visible, but no phone







MAP AREA	6
INVENTORY SITE #	25 92 93

Park Name: Maluaka Beach Park

Location: TMK 2-1-06:59



Area: 4.864 Acres

#25 - TMK 2-1-06: 59 (2.58 Acres) #92 - TMK 2-1-07: 68 (1.006 Acres) #93 - TMK 2-1-05: 124 (1.278 Acres

PARKING: 50 Standard Stalls 2 Handicap Stalls

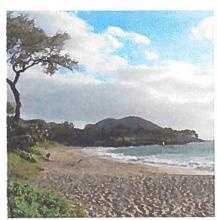
FACILITIES: Washroom

Shower

OTHER: Pedestrian walkway along shoreline

#### **COMMENTS & RECOMMENDATIONS:**

Beach access parking is in 2 locations, East (TMK 2-1-05:124) SITE #92 and North (TMK 2-1-07:68) SITE #93 South access off Old Makena Road.



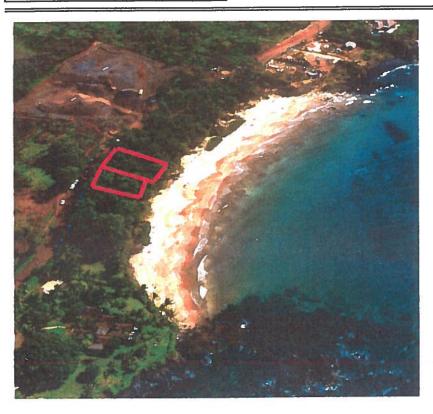




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MAP AREA	5
INVENTORY SITE #	26

Park Name: Palauea Beach Park

Location: TMK 2-1-11:18 & 19



AREA: 0.965 Acres

TMK 2-1-11:18 - 0.415 acres TMK 2-1-11:19 - 0.550 acres

PARKING: 12 unmarked on-street

FACILITIES: 1 Portable Toilet

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

No formal parking, 12-15 cars possible along roadway.





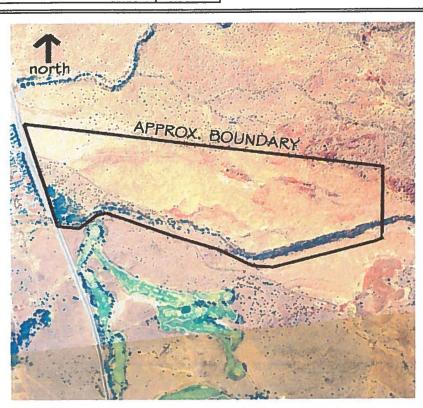


**Facilities Inventory** 

MAP AREA	3
INVENTORY SITE #	27

Park Name: Kihei Charter School Site

Location: TMK 20-2-02:Por. of 54



AREA: 2611 Acres (Por. Of)

PARKING: none

FACILITIES: none

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Undeveloped

Possible future location of the proposed Kihei Charter School (portion).







**Facilities Inventory** 

MAP AREA	3
INVENTORY SITE #	28

Park Name: Kihei Elemntary School

Location: TMK 2-2-02:Por. of 43

AREA: 12.399 Acres (approx.)

PARKING: 27 Standard Stalls

40 Additional Curbside

1 Handicap Stall

FACILITIES: Multi-purpose Room (300+)

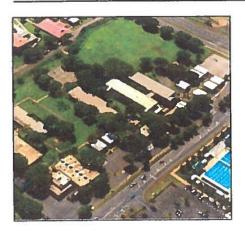
2 Basketball Courts Baseball / Soccer Field



OTHER: 6 Permanent Bldgs 24 Portable Bldgs

#### **COMMENTS & RECOMMENDATIONS:**

Many mature shade trees



**Facilities Inventory** 

MAP AREA	3
INVENTORY SITE #	29

Park Name: Lokelani Intermediate School

Location: TMK 2-2-02:Por. of 43



PARKING: 55 Standard Stalls

3 Handicap Stalls

FACILITIES: Multi-purpose Room

Large Play Field 1 Tennis Court



OTHER: 7 Permanent Bldgs 13 Portable Bldgs Cafeteria

#### **COMMENTS & RECOMMENDATIONS:**

Future connection to the Kihei Community Park should be established for children to use the park facilities.





**Facilities Inventory** 

MAP AREA	4
INVENTORY SITE #	30

Park Name: Kamalii Elemntary Sch.

Location: TMK 3-9-19:09

AREA: 12.014 Acres

PARKING: 90 Standard Stalls

4 Handicap Stalls

FACILITIES: Playground

2 Basketball Courts

Play field Cafeteria



OTHER:

# **COMMENTS & RECOMMENDATIONS:**

Good views







MAP AREA	6
INVENTORY SITE #	31 56

Park Name: Big Beach (Makena-Oneloa State Park)

Location: TMK 2-1-06:26,27,28, 30,80,102

AREA: 134.88



PARKING: 97 Standard Paved 6 Handicap Stalls 80 Unmarked along access roads

FACILITIES: 6 Portable Toilets
4 Picnic Tables

OTHER: Several Trash Cans

# **COMMENTS & RECOMMENDATIONS:**

Additional unmarked, on-street parking is available at the South end of the Makena-Oneloa Park site. Permanent washroom buildings are appropriate for an area of such high use.







**Facilities Inventory** 

MAP AREA	6
INVENTORY SITE #	32

Park Name: Small Beach

(Makena-Oneloa State Park)

Location: TMK 2-2-06:81

AREA: 26.88 Acres

PARKING: None

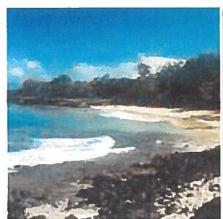
FACILITIES: None

OTHER:



#### **COMMENTS & RECOMMENDATIONS:**

Numerous trails in area lead up to Puu Olai



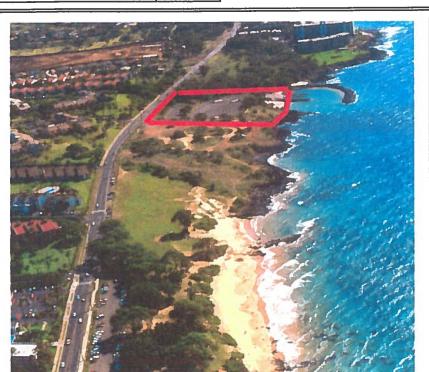




MAP AREA	4
INVENTORY SITE #	33

Park Name: Kihei Boat Ramp

Loaction: TMK 3-9-04: POR. 01 &61



AREA: 7.531 Acres

PARKING: 40 Standard Stalls

35 Boat/Trailer Stalls

FACILITIES: Washroom

3 Picnic Tables

OTHER: 3 Boat Washing Areas South Maui Heritage Corridor Sign

# **COMMENTS & RECOMMENDATIONS:**

Possible key (nodal) area as part of the Coastal Heritage Trail Shaded area adjacent to boat ramp

Enlarge existing parking area and add mature trees with drip irrigation - Kihei Comm. Assoc. Recommendation







MAP AREA	4
INVENTORY SITE #	34

Park Name: Kahoolawe Island
Reserve Commission

Location: TMK 3-9-04:Por. of 01 & 61

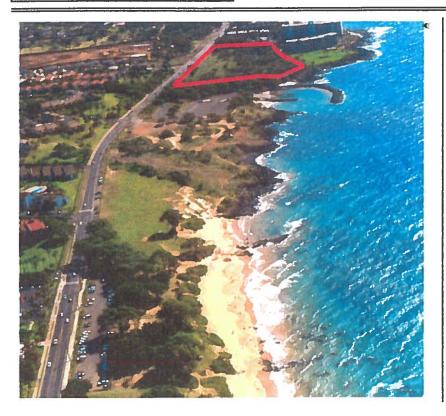
AREA:

8.261 Acres

PARKING: None

FACILITIES: None

OTHER:



#### **COMMENTS & RECOMMENDATIONS:**

The Kahoolawe Island Reserve Commission has a master plan for this area. Relatively flat with scrub Kiawe bushes.







**Facilities Inventory** 

MAP AREA	3 & 4
INVENTORY SITE #	35 to 50

Park Name: Various State Beach

Reserves Location: see below

AREA: 20.33 ACRES

				1960
EOD I	SIACITACO	SEE	INVENTORY	MAP SHEET 4

35	TMK 3-9-04; por. Of 01
36	TMK 3-9-05: 31
37	TMK 3-9-05: 01
38	TMK 3-9-05: 55
40	TMK 3-9-09: 11
41	TMK 3-9-09: 33
42	TMK 3-9-09: 34
43	TMK 3-9-09: 32
44	TMK 3-9-09: 12
45	TMK 3-9-09: 31
46	TMK 3-9-08: 01
47	TMK 3-9-07: 05
48	TMK 3-9-07: 04
49	TMK 3-9-07:03
50	TMK 3-9-07: 65

#### **COMMENTS & RECOMMENDATIONS:**

Public parking lot is at site #35, approximately 30 stalls.







MAP AREA	3
INVENTORY SITE #	51

Park Name: Regulation Reservoir

Location: TMK 3-9-09: 13



AREA:

6.05 Acres

PARKING: None

FACILITIES: None

OTHER:

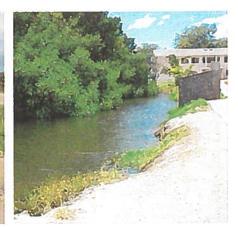
#### **COMMENTS & RECOMMENDATIONS:**

Storm water detention area

Bridge over reservoir could have pedestrian elements added, eg. benches for pedestrians or fishermen.







**Facilities Inventory** 

MAP AREA	5
INVENTORY SITE #	90

Park Name: Kihei Canoe Club

Location: TMK 3-8-13: 02

AREA:

0.72 Acres

PARKING: On-street parking

FACILITIES: 1 Outdoor Shower

1 Hale for Club Use



OTHER: None

# **COMMENTS & RECOMMENDATIONS:**

Adjacent to the old Kihei Wharf







**Facilities Inventory** 

MAP AREA	5
INVENTORY SITE #	9 & 53

Park Name: Poolenalena / Chang's Beach

Location: TMK 2-1-07:84 TMK 2-1-07:72

AREA:

#53 2 Acres #9 2.765 Acres

PARKING: 20-30 Cars

FACILITIES: 1 Portable Toilet

2 Trash Cans

53

OTHER:

**SEE SHEET NUMBER 9 FOR DETAILS** 

**Facilities Inventory** 

i dolling illitoling	
MAP AREA	6
INVENTORY SITE #	55

Park Name: Oneuli Beach Access

(Makena-Oneloa State Park)

Location: TMK 2-1-06: 32

AREA:

8.6 Acres

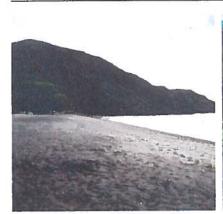
PARKING: 12 unmarked stalls

FACILITIES: None





PUU OLAI





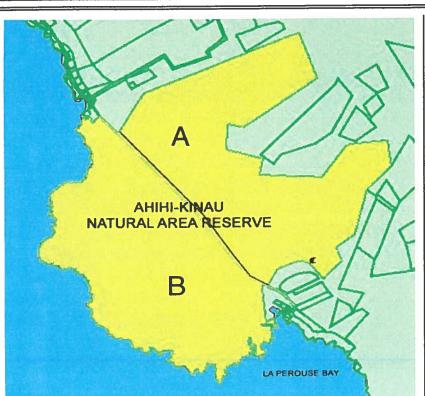


MAP AREA	7
INVENTORY SITE #	64A & B

Park Name: Ahihi-Kinau Reserve

Location: TMK 2-1-04: 73

TMK 2-1-04: 113



AREA: 1235.8 Acres

64 A TMK 2-1-04: 113 64 B TMK 2-1-04: 73

Acres 64 A 630 64 B 605.8

Beach Access #102 - "Wedding Beach" Beach Access #101 - "The Dumps"

# **COMMENTS & RECOMMENDATIONS:**

There are approximately 4 to 5 miles of trail throughout the area reserve.

Most trails are unmarked, however, they are located in giude books.

There are no facilities wthin this area.

Parking areas along the Makena-Keoneoio Road are within walking distance of most trail heads. But, parking is limited.

#### CONTINUED ON NEXT PAGE







# AHIHI-KINAU RESERVE RECOMMENDATIONS CONTINUED

Department of Land and Natural Resources Recommendations

A long-term resource and threat monitoring system must be implemented to guide and assess management actions;

A greater presence in the area by DLNR staff and/or volunteers, along with support equipment, is necessary to provide adequate information, interpretation and enforcement;

Rule revisions are needed that give DLNR authority to carefully regulate human activity within the reserve; Buoys to mark the marine boundary and fencing on land are deemed necessary to provide for adequate enforcement;

Increased signage of both regulatory and interpretive types are also needed to provide adequate public notice of the reserveís highly protective

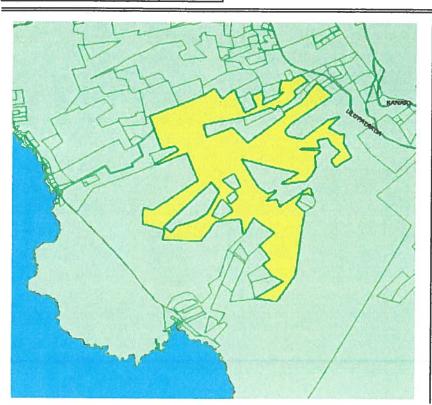
SOURCE: Stae of Hawaii web-site, http://www.state.hi.us/dlnr.

**Facilities Inventory** 

MAP AREA	6 & 7
INVENTORY SITE #	65

Park Name: State of Hawaii

Location: TMK 2-1-04: 49



AREA: 892.04 Acres

PARKING: None

FACILITIES: None

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

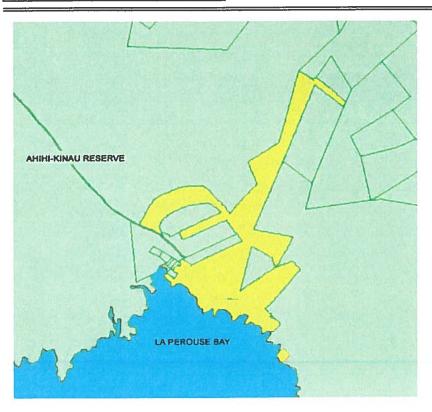
Large, irregular parcel of land owned by the State of Hawaii. Might be possible in the future to use this and other connected parcels as part of an overall system of trails (connecting Ahihi Kinau Reserve to Ulupalakua).



MAP AREA	6 & 7
INVENTORY SITE #	66 to 69

Park Name: State Owned Land

Location: see below



AREA:	91.02 Acres
66 67 68 69	TMK 2-1-04: 114 TMK 2-1-04: 110 TMK 2-1-04: 75 TMK 2-1-04: 111
66 67 68 69	Acres 73 4.36 13 0.66

#### **COMMENTS & RECOMMENDATIONS:**

Large and irregular parcels that connect to the much larger State Parcel TMK 2-1-04: 49 (#65).

In the future a hiking trail connection might be made that links Ahihi-Kinau to Puu Kanaloa, Puu Naio and Ulup The Friends of Keon'o'io have plans for improving this area.

Recent surveys showed 160,000 entering this area per month and that there is a definite lack of facilities, particularly toilets and signage



MARCH 2003





**Facilities Inventory** 

MAP AREA	2
INVENTORY SITE #	70 to 73

Park Name: Kealia Pond Area

Location: TMK 3-8-05: Por. Of 03

TMK 3-8-05: Por. Of 02



AREA: 696 Acres

70 COASTAL ACCESS (21ac)

71 WILDLIFE VIEWING

(UPCOMING) (65ac,)

72 CANOE CLUB SITE (1ac.)

73 KEALIA POND (609ac.)

PARKING: None

FACILITIES: None

OTHER: Wildlife sanctuary

#### **COMMENTS & RECOMMENDATIONS:**

This area will eventually be developed as a natural reserve. SITE #71 in upcoming . No public access except along the shore at Maalaea and N.Kihei.







MAP AREA	5	
INVENTORY SITE #	74 to 82 & 102	

Park Name: Beach Access

Location: see Inventory Maps

Acres

74	BA120	0.04
14	DAIZU	0.04

#74 BA120	0.04	KEOLAHOU
#75 BA119	0.06	KEOLANUI PL
#76 BA117	0.16	WAIOHULI
#77 BA116	0.11	KAUNA PL
#78 BA115	0.16	WELEKAHAO
#79 BA114	0.13	KEOLAIKI
#80 BA113	0.11	KUOLA PL
#81 BA112	0.13	WAIMAHAIHAI
#82 BA111	0.005	LELE PL

#102 BA118 0.07 LIPOA

# SEE INVENTORY MAP SHEETS 3 AND 4 FOR LOCATIONS

#### **COMMENTS & RECOMMENDATIONS:**







Facilities Inventory

MAP AREA	4
INVENTORY SITE #	83

Park Name: Beach Access Parking

Location: TMK 3-9-05: 47



AREA: 0.58 Acres

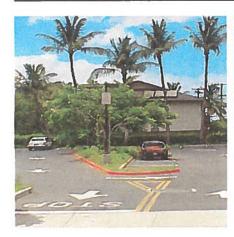
PARKING: 40 Standard Stalls

FACILITIES: None

OTHER:

# COMMENTS & RECOMMENDATIONS:

Parking lot is at S.Kiehi Road and Kaiau Place. A short walk to Charley Young Beach







MAP AREA	4
INVENTORY SITE #	85

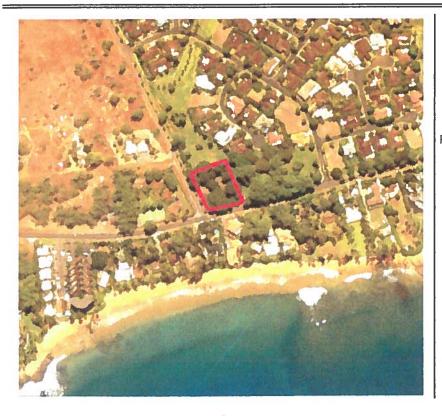
Park Name: Public Parking

Location: TMK 2-1-21: 01



PARKING: 62 Standard Stalls

FACILITIES: None



OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Should be used an example of future parking lot designs. Very well shaded parking lot. Effective screen planting from roadway. Good access from roadway via stairs up to parking.







**Facilities Inventory** 

MAP AREA	5
INVENTORY SITE #	86

Park Name: Keawakapu Beach

Access

Location: TMK 2-1-8: not specified

AREA:

0.272 Acres

PARKING: 22 Standard Stalls

1 Handicap Stall

FACILITIES: 1 Outdoor Shower

Stairs to the Beach

KEAWAKAPU BEACH

OTHER: Beach Access Stairs

**COMMENTS & RECOMMENDATIONS:** 



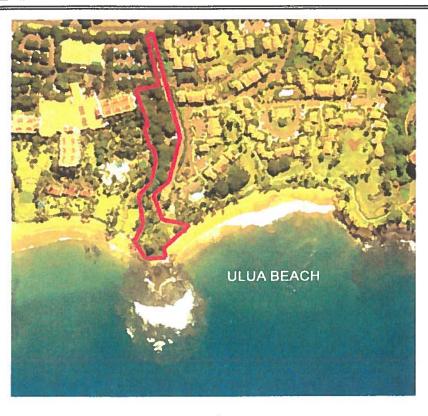




MAP AREA	5
INVENTORY SITE #	87

Park Name: Mokapu / Ulua Bch. Access

Location: TMK 2-1-8: 88



AREA: 2.163 Acres

PARKING: 35 Standard Stalls

FACILITIES: 1 Outdoor Shower Area

1 Washroom

OTHER:

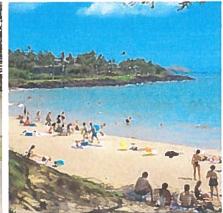
#### **COMMENTS & RECOMMENDATIONS:**

Well shaded parking area.

Washroom and shower facilities are in good condition. However, there is a lack of change facilities and no drinking fountain







**Facilities Inventory** 

MAP AREA	5
INVENTORY SITE #	88

Park Name: Wailea Beach Park

Access

Location: TMK 2-1-08: 89

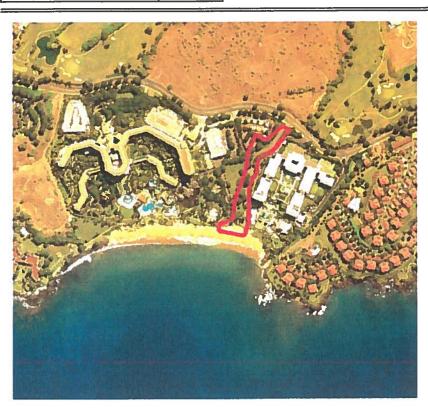
AREA: 2.097 Acres

PARKING: 90 standard stalls

4 handicap

FACILITIES: Outdoor Showers

Washroom



OTHER:

**COMMENTS & RECOMMENDATIONS:** 







**Facilities Inventory** 

ſ	MAP AREA	5
Ī	INVENTORY SITE #	89

Park Name: Wailea Beach Walk

Location: see Inventory Map 5

LENGTH: 1.6 Miles (8,500 ft)

PARKING: Various Locations

FACILITIES: None

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Various points of interest along the walk (heiau, telescope viewpoint, native plant garden, etc.)







**Facilities Inventory** 

MAP AREA	5
INVENTORY SITE #	90

Park Name: Polo Beach Access

Location: TMK 2-1-23: 8 & 10



PARKING: 86 Standard Stalls 2 Handicap Stalls

FACILITIES: Washrooms
Outdoor Shower
5 picnic Tables



OTHER:

**COMMENTS & RECOMMENDATIONS:** 







**Facilities Inventory** 

MAP AREA	5
INVENTORY SITE #	91

Park Name: Makena Beach

Bch Access #104

Location: TMK 2-1-07: Por. Of 95

AREA:

0.24 Acres

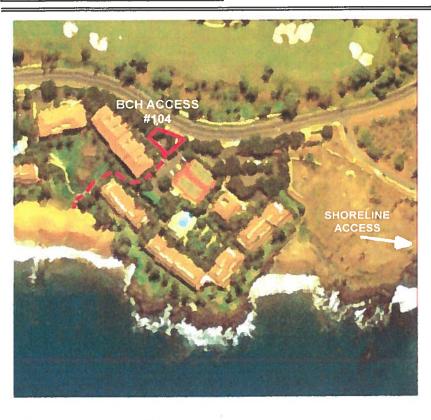
PARKING: 9 Standard Stalls

10 On-street at

Makena Place Access

FACILITIES: 1 Outdoor Shower

Sidewalk



OTHER:

### **COMMENTS & RECOMMENDATIONS:**

Beach access via sidewalk through multi-family development. Preserved archaelogical site







**Facilities Inventory** 

MAP AREA		7
INVENTORY	SITE#	94

Park Name: Hanamanioa Lighthouse

Location: TMK 2-1-4:70



AREA:

2 Acres

PARKING: None

FACILITIES: None

OTHER:

# **COMMENTS & RECOMMENDATIONS:**

This is a remote site about a 30 min. hike from the parking lot at La Perouse.

This land is under federal jurisdiction.

A nearby pool attracts park visitors.

MAP AREA	4
INVENTORY SITE #	98

Park Name: Kihei Community Park

Location: TMK 2-2-02: 42



AREA: 44.43 Acres

PARKING: None

FACILITIES: None

OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Future site of Kihei Community Park

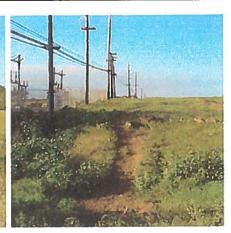
Will include:

- 3 Soccer Fileds
- 3 Baseball Fields
- **6 Tennis Courts**

A pavillion / youth center and comfort stations.







MAP AREA	3
INVENTORY SITE #	100

Park Name: Whale Sanctuary

Location: TMK 3-9-01: 87

AREA:

1.13 Acres

PARKING: 20 Standard Stalls

FACILITIES: 3 Buildings

Interpretive Center



OTHER:

#### **COMMENTS & RECOMMENDATIONS:**

Site of the Marine Education Center - Free Public Access Site of native beach plant restoration project at entrance to site. Nice seating area at south edge. Benches built around a tree. Royal Fish Pond' is directly in front of this site.







**Facilities Inventory** 

MAP AREA	4
INVENTORY SITE #	101

Park Name: POLICE & FIRE

Location: Various

TMK: 3-9-01:20

Waimahaihai Fire Station

1.0 Acres

TMK: 3-9-38:28 por. Wailea Fire Station

Lot 23-A-2

Por. Of 3.152 Acres

FOR LOCATIONS SEE INVENTORY MAP 4

TMK: 3-9-03:12 por. Kihei Town Center 1881 S. Kihei Road

COMMENTS & RECOMMENDATIONS:

	BY SITE NUMBER	SHEET NUMBER		BY SITE NAME	SHEET NUMBER
	WALL DE LOUIS BARK OF COME BARK	4	64A	AHIHI-KINAU NATURAL AREA RESERVE	7
1	KALAMA BEACH PARK (& COVE PARK)	4	64B	AHH-KINAU NATURAL AREA RESERVE	7
2	KAMAOLE BEACH PARK I	4	21	BALDWIN - MALAMA BASIN / SOCCER FIELD	3
3	KAMAOLE BEACH PARK II	4	74-84	BEACH ACCESS LOTS	3 & 4
4	KAMAOLE BEACH PARK III		-4		4
5	KALEPOLEPO BEACH PARK	3	86-87	BEACH ACCESS LOTS	5 & 6
6	KIHEI MEMORIAL PARK (MAPOINA OE LAU)	3	<b>-</b> } ''''	7 BEACH ACCESS LOTS	6
7	KENOLIO RECREATION COMPLEX	3	55	BLACK SAND BEACH (ONEULI)	3
8	KILOHANA PARK	4	52	CANOE CLUB SITE	2
9	POOLENALENA PARK (CHANG'S)	5	72	CANOE CLUB SITE	
10	CHARLEY YOUNG PARK	4	10	CHARLEY YOUNG PARK	4
11	MAALEA BEACH PARK	2	70	COASTAL ACCESS	2
12	KENOLIO PARK	3	14	HALE PIILANI SUBDIV. PARK	3
13	KIHEI BEACH RESERVE (WAIPUILANI PK.)	3	34	KAHOOLAWE ISLAND RESERVE COMMISION	4
		3	1 1	KALAMA BEACH PARK (& COVE PARK)	4
14	HALE PIILANI SUBDIV. PARK	3	5	KALEPOLEPO BEACH PARK	3
15	KENOLIO PARK (SEWAGE PUMP STATION)	4	30	KAMALII ELEMNTARY SCHOOL	4
16	KEONEKAI PARK		2	KAMAOLE BEACH PARK I	4
17	LEI (HORITA'S) BEACH PARK	3	-7		4
18	MAUI PEACE PARK	4	3	KAMAOLE BEACH PARK II	4
19	KIHEI REGIONAL PARK	44	4	KAMAOLE BEACH PARK III	4
20	KIHEI COMMUNITY & AQUATIC CENTERS	3	22	KAMOLE POINT	
21	BALDWIN - MALAMA BASIN / SOCCER FIELD	3	73	KEALIA POND	2
22	KAMOLE POINT	. 4	71	KEALIA POND WILDLIFE REFUGE BOARDWLK	2
23	KILOHANA DRIVE & WAILEA FIRE STATION	4	12	KENOLIO PARK	3
24	MAKENA LANDING	6	15	KENOLIO PARK (SEWAGE PUMP STATION)	3
	MALUAKA BEACH PARK (MAUI PRINCE)	6	7	KENOLIO RECREATION COMPLEX	3
25		5	16	KEONEKAI PARK	4
26	PALAUEA BEACH PARK	3	13	KIHEI BEACH RESERVE (WAIPUILANI PK.)	3
27	KIHEI CHARTER SCHOOL	3	33	KIHEI BOAT RAMP	4
28	KIHEI ELEMENTARY		-₫		3
29	LOKELANI INTERMEDIATE SCHOOL	3	27	KIHEI CHARTER SCHOOL	3
30	KAMALII ELEMNTARY SCHOOL	4	20	KIHEI COMMUNITY & AQUATIC CENTERS	3 & 4
31	MAKENA-ONELOA PARK (BIG BEACH)	6	98	KIHEI COMMUNITY PARK (PROPOSED)	3
32	SMALL BEACH	· 6	28	KIHEI ELEMENTARY	3
33	KIHEI BOAT RAMP	4	6	KIHEI MEMORIAL PARK (MAPOINA OE LAU)	- 4
34	KAHOOLAWE ISLAND RESERVE COMMISSION	4	19	KIHEI REGIONAL PARK	
5-50	STATE BEACH RESERVE	3 & 4	23	KILOHANA DRIVE & WAILEA FIRE STATION	4
51	REGULATION RESERVOIR	3	8	KILOHANA PARK	4
52	CANOE CLUB SITE	3	17	LEI (HORITA'S) BEACH PARK	3
		5	99	LIGHTHOUSE SITE	7
53	POOLENALENA PARK (CHANG'S) -SEE #9	6	29	LOKELANI INTERMEDIATE SCHOOL	3
54	SHORELINE ACCESS		11	MAALEA BEACH PARK	2
55	BLACK SAND BEACH (ONEUL!)		4	MAKENA BCH ACCESS #104	5
56	MAKENA-ONELOA STATE PARK - SEE #31	6	91		6
64A	AHIHI-KINAU NATURAL AREA RESERVE	<u> </u>	24	MAKENA LANDING	6
64B	AHIHI-KINAU NATURAL AREA RESERVE		31	MAKENA-ONELOA PARK (BIG BEACH)	6
5-69	STATE OF HAWAII	7	56	MAKENA-ONELOA STATE PARK -SEE #31	6
70	COASTAL ACCESS	2	25	MALUAKA BEACH PARK (MAU) PRINCE.)	
71	KEALIA POND WILDLIFE REFUGE BOARDWLK	2	18	MAUI PEACE PARK	4
72	CANCE CLUB SITE	2	26	PALAUEA BEACH PARK	5
73	KEALIA POND	2	101	POLICE AND FIRE	4
4-84	BEACH ACCESS LOTS	3 & 4	90	POLO BEACH ACCESS	5
	BEACH ACCESS LOTS	4	9	POOLENALENA PARK (CHANG'S)	٠, 5
6-87		4	53	POOLENALENA PARK (CHANG'S) - SEE #9	5
85	PUBLIC PARKING (KEAWAKAPU BEACH)	5	85	PUBLIC PARKING (KEAWAKAPU BEACH)	4
88	WAILEA BEACH PARK ACCESS		1	REGULATION RESERVOIR	3
89	WAILEA BEACH ACCESS COASTAL WALK	5	51		6
90	POLO BEACH ACCESS	5	54	SHORELINE ACCESS	6
91	MAKENA BCH ACCESS #104	5	32	SMALL BEACH	3 & 4
2,93,97	BEACH ACCESS LOTS	5 & 6	35-50	STATE BEACH RESERVE	
98	KIHEI COMMUNITY PARK (PROPOSED)	3 & 4	65-69	STATE OF HAWAII	7
99	LIGHTHOUSE SITE	7	89	WAILEA BEACH ACCESS COASTAL WALK	5
		3	88	WAILEA BEACH PARK ACCESS	5
100	WHALE SANCTUARY SITE	4	100	WHALE SANCTUARY SITE	3

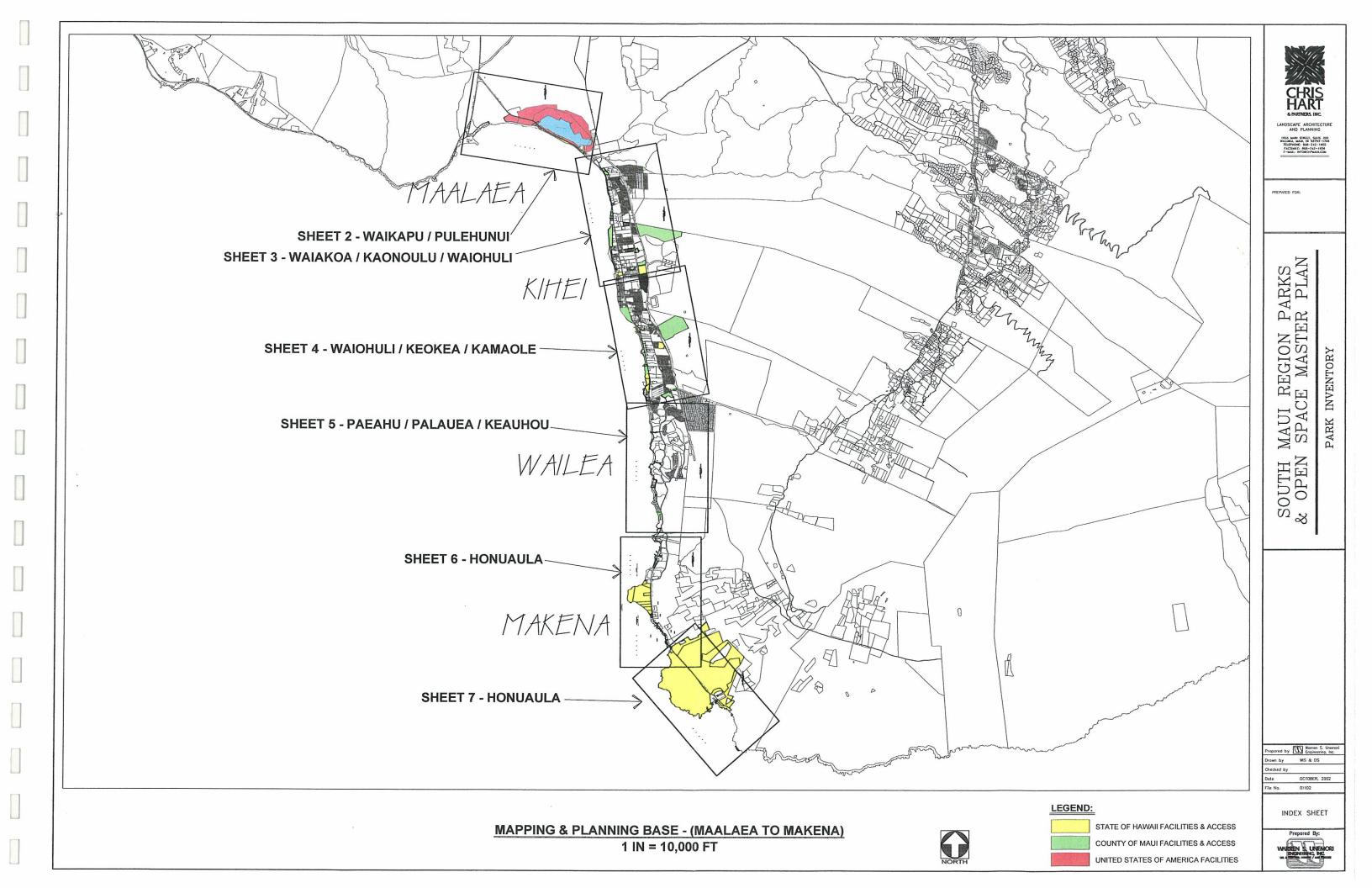
## South Maui Region Parks and Open Space Master Plan Park Inventory Matrix - Existing Facilities COUNTY, STATE & FEDERALLY OWNED FACILITIES

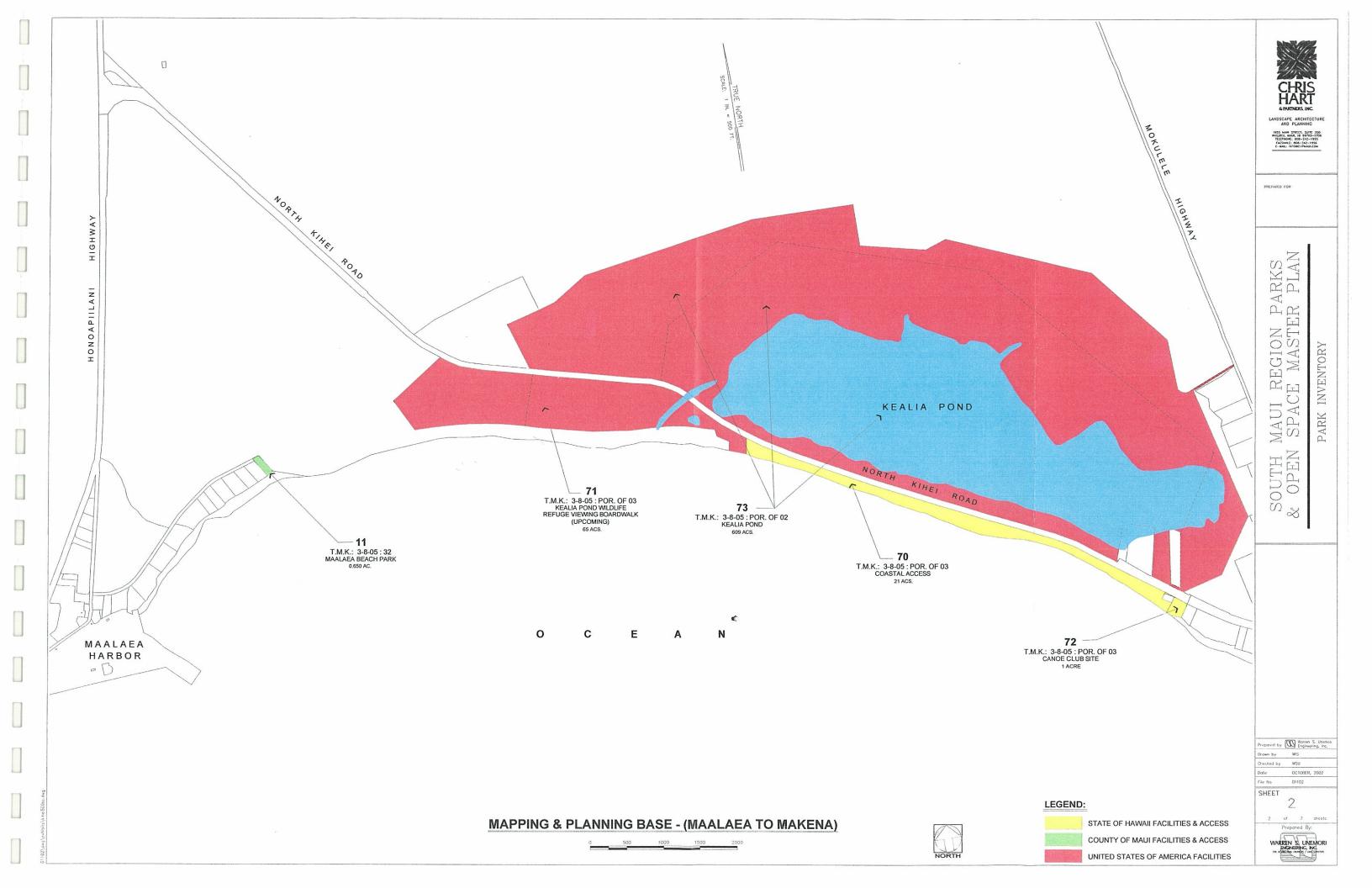
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10	CHARLEY YOUNG PARK	1.6	100	200		2		19 34	100	88 S				16 96	44		3	2	100		2	10	200	100		G ASI		100	150	SYP	22 97			682	58
11	MAALEA BEACH PARK	0.65	200		6	2			1000						10		2	1	3008 2		1				000		100		188		200	AR 538	100		90
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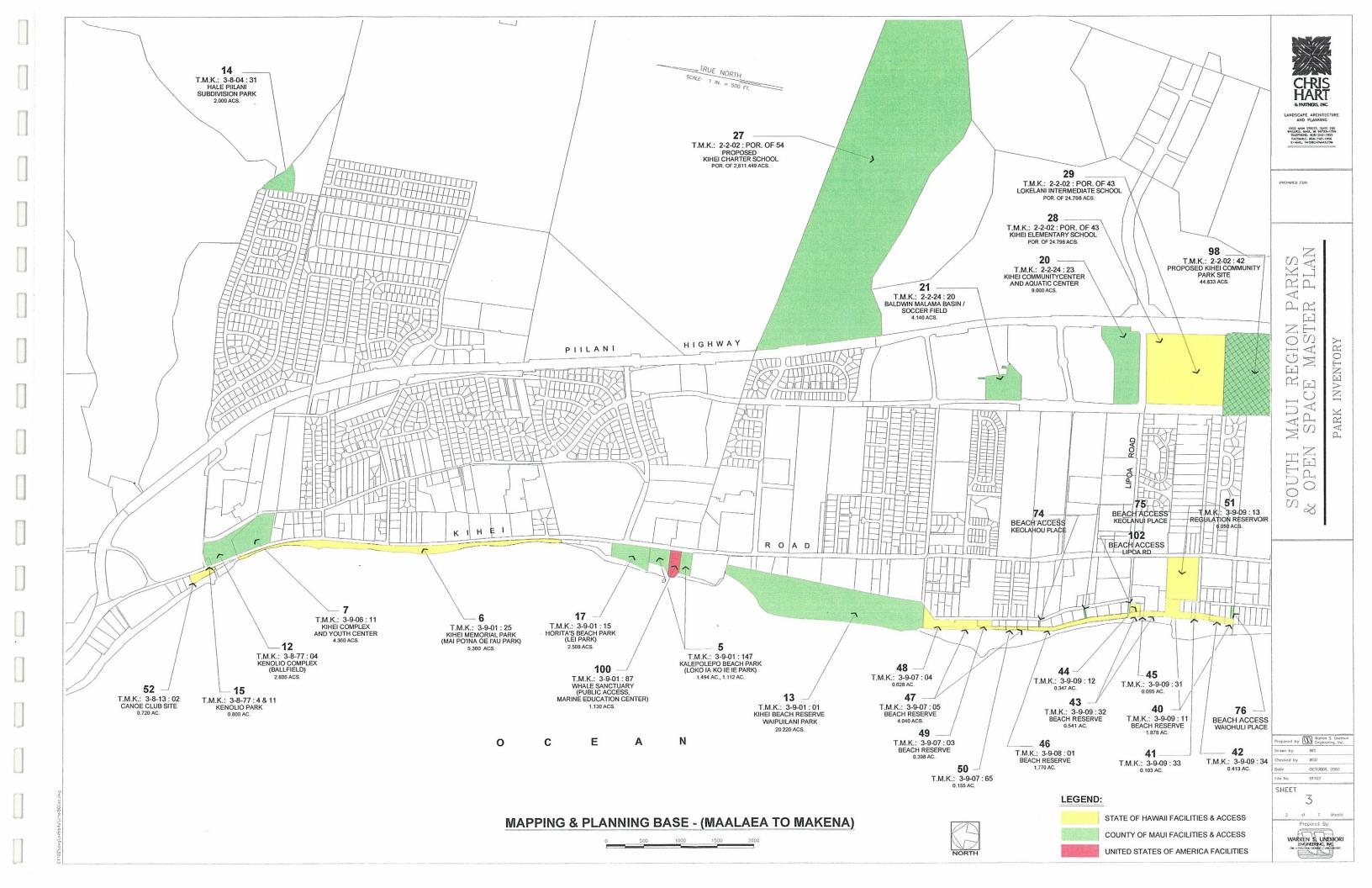
\*\* Future Kihei Community Park facilities are not included in calculations. NOTE: County land area includes 2611 acres Kihei Charter School Site

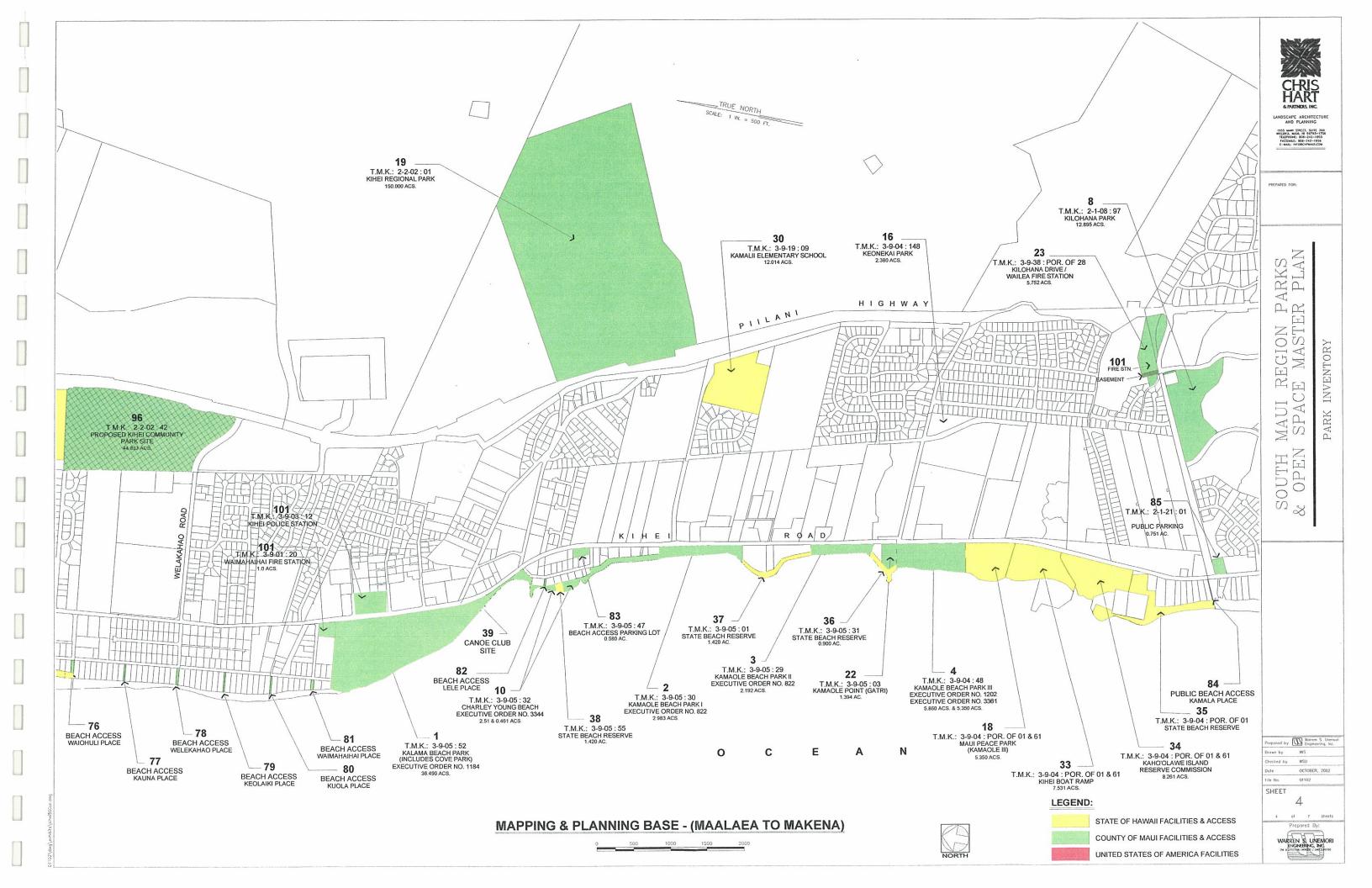
South Maui Region Parks and Open Space Master Plan

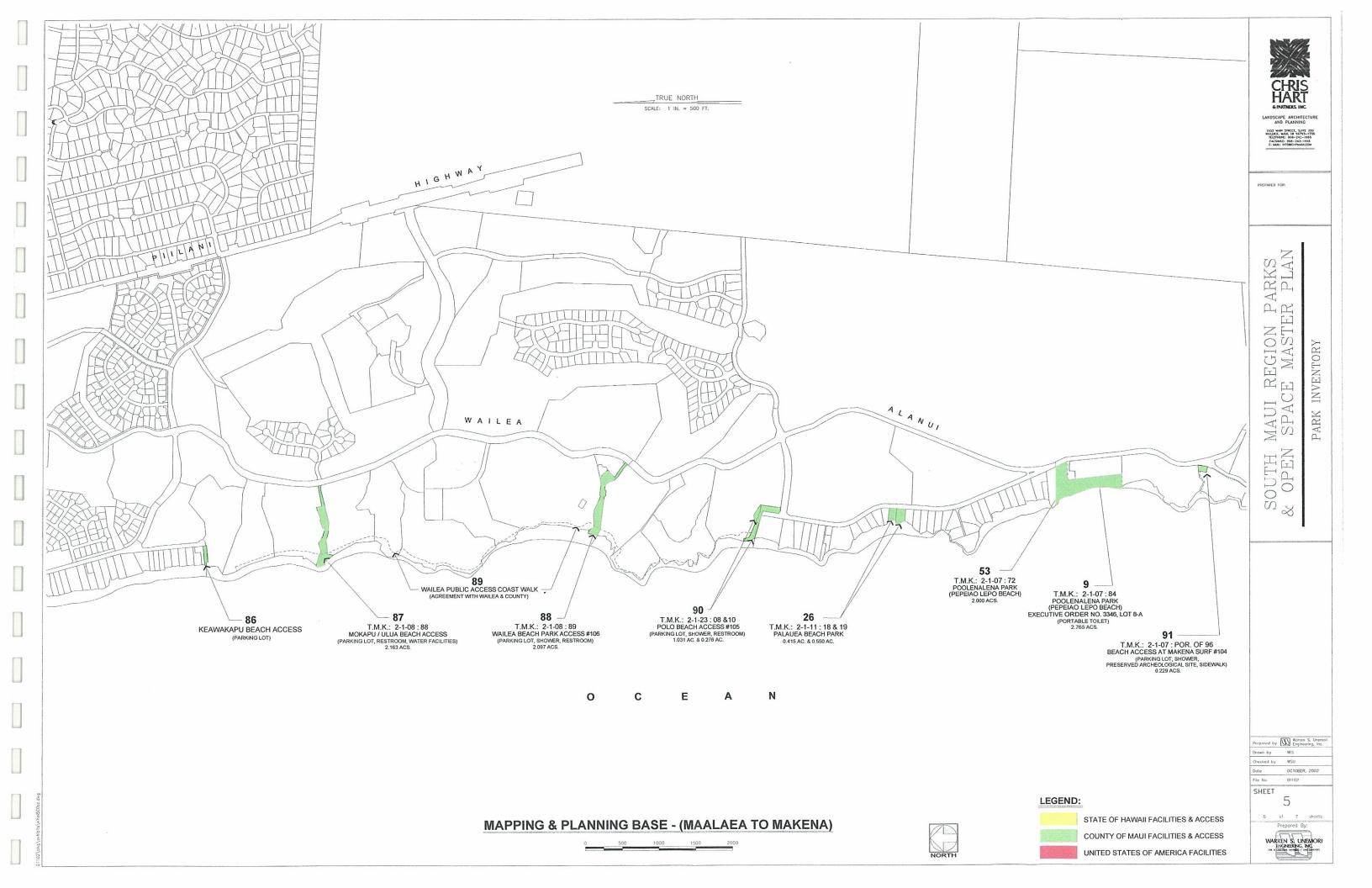
Park Inventory Matrix -Existing Facilities

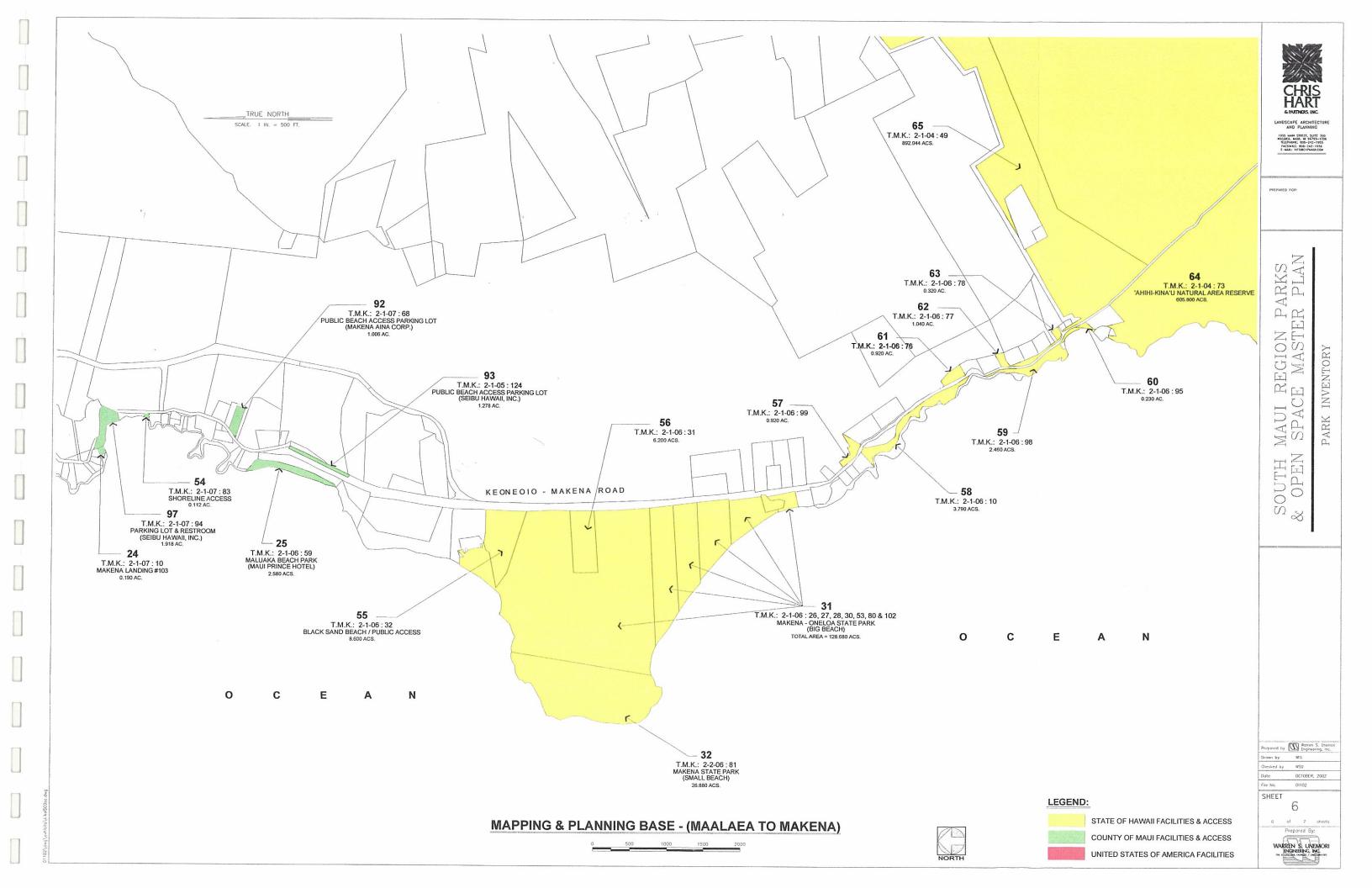


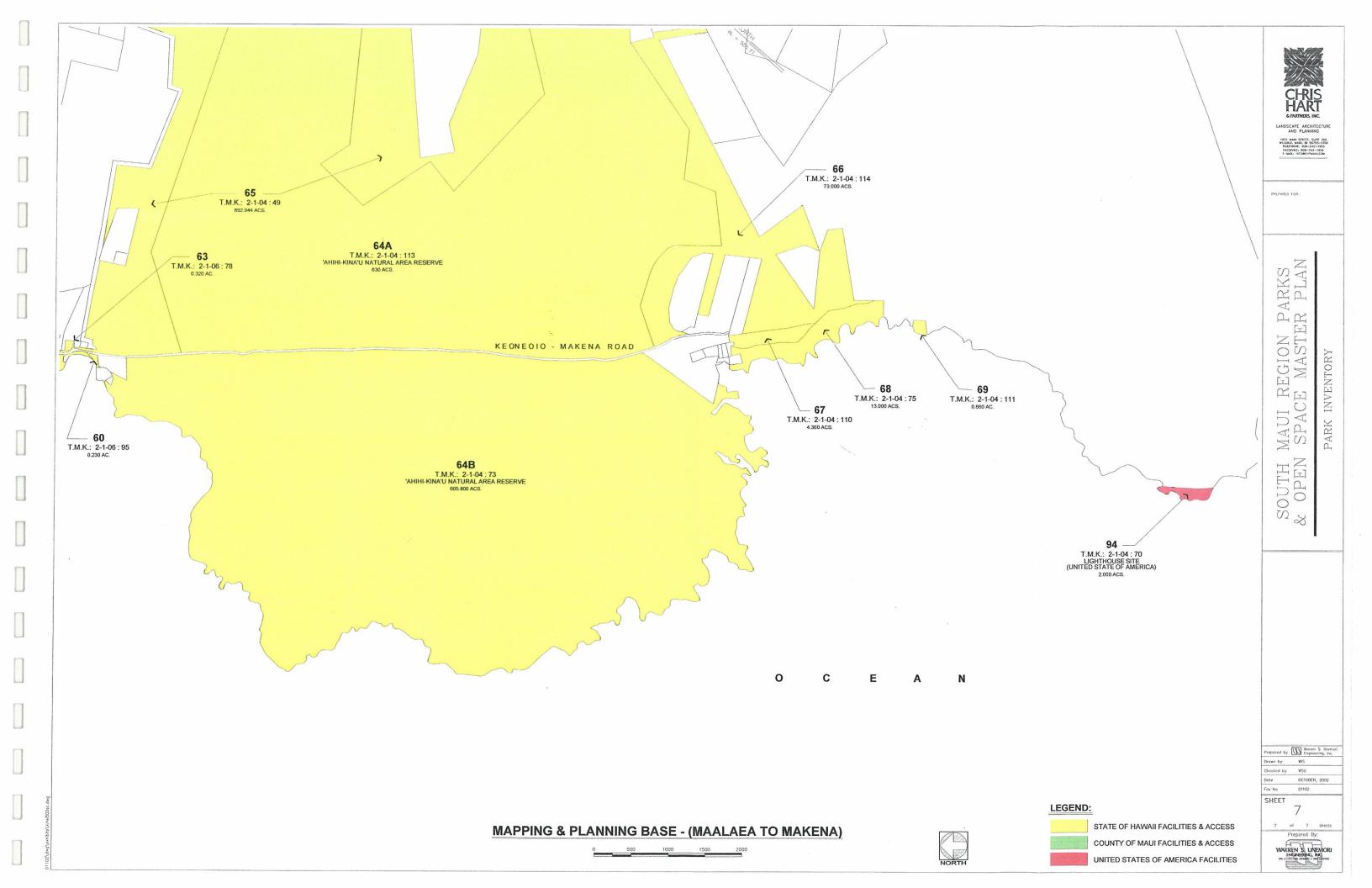












111.	THE	<b>PARKS</b>	<b>AND</b>	<b>OPEN</b>	SPACE	VISION
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#### 1. IN THIS SECTION

This section describes Kihei-Makena's Collective *Parks and Open Space Vision*. This Vision is the result of many years of community involvement in numerous workshops and public forums. The culmination of this process resulted in the creation of the *Kihei-Makena Community Plan* in 1998. The process is ongoing, however, with several opportunities for refinement and amendment taking place after 1998. The chronology of events that led to the creation of the *Kihei-Makena Community Plan* and subsequent events are summarized in this section. The main goals of the Community Plan, as they pertain to parks and open space planning, are also presented in this section. 'The Vision' is detailed in the form of maps at the end of this section. It is described in sub-section 4 (p.44), including six implementing actions. The final part of this section outlines how the Kihei Community received the Vision and documents their input.

'The Vision' maps represent the physical manifestation of the listed goals and recommendations from the described vision-forming process for Kihei-Makena.

### 2. TOWARDS AN OPEN SPACE VISION IN SOUTH MAUI

In the 1970's the Kihei community prepared "Proclamation! Kihei's Community Vision". The main points of the 'vision' called for development to occur in conjunction with:

- Preservation,
- o Conservation and
- Buffering urban development with parks and open space.

In the 1990's, numerous workshops were held to inform the Community Plan process and to accumulate community input.

1992: Citizen's Advisory Committee - Existed for 18 months. Provided input for the Kihei Makena Community Draft Plan.

November 11, 1995: *Kihei Greenways* — a visioning and prioritizing workshop which gave an overview to Kihei and its resources in order to develop greenways, trails and open spaces which would include:

- o Recreational features
- o Cultural assets
- A park system throughout South Maui

November 1995: *Greenways Workshop* sponsored by Bikeways Maui and Kihei Community Association with funds from the Kodak Greenway grants of the American Conservation Fund. Bob Searns of Urban Edges (Denver, Colorado) was hired to facilitate a one day workshop. Approximately 100 people including 30 youth attended. After a visual presentation depicting greenway projects on the mainland, the group shared their values for the proposed Kihei Greenway. They then split into three groups- Economics, Recreation/Transportation, and Stewardship. Each group was charged with creating a vision, based on its specific focus. At the end, the groups came together to share what they had created and to develop a unified draft vision combining all three group visions. The results of the workshop led to the creation of the Kihei 2000 Amendment to the Kihei Community Plan.

June 14, 1996: "The Malama Group" — Landowners supporting a Kihei Greenway Corridor - draft a business plan and provide a framework for the work to be done. "Greenways are both environmentally and economically advantageous." Greenways improve the quality of life in Kihei by providing:

- Economic Benefits
- o Provide transportation alternatives
- o Create and improve recreational opportunities
- Provide and protect open space and view corridors
- o Connect commercial, residential, and recreational areas
- o Preserve and enhance natural beauty of Kihei area to benefit urban habitat and supplement tourist attraction
- o Environmental Benefits
- Increased property values
- o Enhanced visitor attraction & business attraction

### June 1996: South Maui Heritage Corridor Workshop

Tri-Isle Resource Conservation and Development Program of the U.S. Department of Agriculture and Bikeways Maui to offer funds to develop cultural attractions for the state of Hawaii. Bikeways Maui submitted a proposal to define a coastal trail in south Maui that connected, identified, and interpreted cultural and historic sites along the route. The program was developed through the South Maui Coastal Heritage Corridor Action Committee.

- Identify physical cultural sites and natural resources within the corridor area, which could be preserved and/or developed to support traditional culture and arts practices
- Coastal trail the full length of the shoreline
- o Mauka bikeway parallel to the Pi'ilani Highway
- o Landscaped trail corridors, broadening into mini-parks
- o Eventual connection to the Pali Trail, Ho'apili Trail, and upcountry trails

July 10, 1996: The Kihei Open Space Plan, "Kihei 2000" — a citizen-based sub-Committee of Kihei Community Association, request for amendment of pending Kihei/Makena Community Plan in order to promote a 'sense of place' for Kihei by:

- o Strengthening neighborhood identity,
- o Establishing a system of internal and coastal bikeways and greenways,
- Identifying opportunities for beautification and functional improvements,
- o Identifying and enhancing Kihei's cultural diversity and
- Planting and irrigating and maintaining native trees.

November 1997: The Kihei Downtown Workshop. The projects that were included in the workshop were the Piilani shopping center, the new pool and community center and the Piilani housing Phase II. There were about 100 attendees The main recommendation s were:

- the creation of the greenway along the north /south collector,
- o the use of the wetlands
- o a central plaza or gathering place,
- o a central parking structure,
- o localized transit and a transit station,
- o interconnected trails throughout and
- o extensive landscaping with an emphasis on trees.

March 6, 1998: Kihei-Makena Community Plan adopted by Ordinance No. 2641. It highlighted some main problems of the region.

### Transportation

o Bicycle and pedestrian paths separate from automobile traffic would provide an effective alternative to the car.

### Youth programs

O Community facilities and playing fields. The second most pressing problem is the lack of youth programs, community facilities, and playing fields to service the entire Kihei/Makena region. Active recreation facilities such as a community soccer, baseball, and football fields are significant community needs.

June 20, 1998: "Visioning a Downtown for Kihei Workshop" -- identifying community needs and recommendations for a town center:

- o Build a community police station,
- o Preserve wetlands as open space,
- Provide park system with benches, kiosks & water fountains,
- Connect parks with trails (walkers and bikers separate from traffic),
- Create gathering places,
- o Create historic walks,
- o Promote pedestrian-oriented design,
- Support the South Maui Heritage Corridor.

August, 2001: Kihei Community Association, "Image Survey" of Kihei's parks. The interim report concludes:

- o Current bikeways are inadequate, i.e. dangerous & non-continuous,
- o Kihei needs trees; shaded and landscaping trees affect walking patterns,
- o Kihei needs recreational, linear, and camping parks to meet the needs of a growing population,
- Citizens need alternative types of transportation to get around the Kihei community and relieve traffic congestion.

## Kihei's Collective Vision

KIHEI COMMUNITY WORKSHOPS	DOWN TOWN KIHEI WORK SHOP	K.C.A KIHEI 2000 WORK SHOP	SOUTH MAUI HERITAGE CORRIDOR SURVEY	NA ALA HELE	BIKEWAY MAUI GREEN WAY WORK SHOP	THE MALAMA GROUP VISION	KIHEI TOWN IMAGE SURVEY	KIHEI MAKENA COMMUNITY PLAN 1998
KIHEI'S WISH LIST								
Plant Native Trees in Community	*	*	*		*	*	*	*
Sports Playing Fields	*	*				*		*
Interconnected Trail System	*	*	*	*	*	*	*	*
Throughout South Maui	*	*	*	*	*	*	*	*
Open Space Preservation Enhance Kihei's Neighborhoods	*	*	*		*	*		*
Preserve, Protect, Restore, Cultural Sites	*	*	*		*			*
Playgrounds and Play equipment	*	*					*	*
Utilize Utility Easements, Drainage Ways, & Wetlands into Open Space Parks	*	*	*		*			*
Shoreline Access, Coastal Walkways	*	*	*	*	*	*	*	*
Preserve Natural Beauty of Kihei	*	*	*		*	*	*	*
Create a "Central Park" in Kihei	*	*			*			*
Utilize Reclaimed Effluent Water	*	*			*			*
Landscaped Pedestrian Ways and Bikeways	*	*	*		*		*	*
"Gateways" into Kihei Town	*	*			*		*	*
Youth Centers	*	*					*	*
Exercise Stations	*	*			*			*
Interpretive Signs for Cultural, Historic Sites	*	*	*		*			*
Develop North South Collector Road/Bikeway	*	*	*		*		*	*
Picnic Tables and BBQ Pits	*	*					*	*
Sitting Areas	*	*			*		*	*
Handicapped Accessible Parks	*	*						*
Safe Corridors for Bikes/Pedestrians	*	*	*	*	*		*	*
Protect Wetlands	*	*			*		*	*
Provide View Corridors	*	*			*	*	*	*

#### 3. THE COMMUNITY PLAN

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After much solicited input throughout the 1990's, the *Kihei-Makena Community Plan* was adopted by County Council on March 6, 1998. The stated goals of this document were to promote the:

- o Identification, preservation, protection and restoration of historical and cultural sites,
- o Establishment of a system of parks, utility easements, shoreline areas, drainage ways and wetlands as an open space network,
- Planning, design and construction a pedestrian and bikeway network,
- Protection of all wetland resources and the respect of natural drainage ways and the
- o Enhancement of Kihei's neighborhoods and the minimization of its dependence upon the automobile.

The Kihei-Makena Community Plan has the following open space-related Goals, Objectives and Policy Recommendations:

#### Land Use

 Establish a system of parks, utility easements, shoreline areas, drainage ways and wetlands as an open space framework for the urban areas of the region to provide an integrated system of pedestrian and bicycle paths.

#### Cultural Resources

o Preserve and restore historical roads and paths as cultural resources, and establish "cultural parks' and heritage corridors for visitation and education; require such resources to be available to the public.

### Housing and Urban Design

 Provide for integration of natural physical features with future development of the region. New development shall incorporate features such as gulches and wetlands into open space and pedestrian pathway and bikeway systems.

### Transportation

- o Strengthen the coordination of land use planning and transportation planning to promote sustainable development and to reduce dependence on automobiles.
- o New residential communities should provide convenient pedestrian and bicycle access between residences, commercial areas, parks and public facilities.

#### Recreation

 Provide high-quality recreational facilities to meet present and future needs of residents of all ages and physical ability.

- Provide for a range of park sizes and types at neighborhood, community and regional scales.
- o Plan, design and construct a regional park within the district, which would include: ball fields, basketball and tennis courts, exercise stations, picnic areas.
- Encourage the construction of public parks adjacent to schools to provide for joint utilization of facilities by school and community.

#### • Education

o Require the construction of a playground and physical education facilities east of Lokelani Intermediate School. Consider the joint use of property of the south side of Lokelani Intermediate School for playground use in order to provide additional recreation space and flexibility for both Lokelani and Kihei Elementary schools.

Specific to the creation of an Open Space Master Plan, Implementing Action 'C' in Objectives and Policies for Land Use in the *Kihei-Makena Community Plan* states:

Prepare an Open Space Master Plan for the region to provide a unified system of non-motorized access to community resources, and to provide a planned program of resource stewardship. Establish standards for the use of drainageways, gulches, wetlands, and easements for public access.

The Open Space Master Plan shall be prepared by partnership between governmental and non-governmental organizations. The plan preparation shall include, but not be limited to, public input and informational workshops; inventory and mapping of cultural, natural, and open space resources; and review of legal options and constraints.

Professional design of the Open Space Master Plan should be funded; and, upon its adoption, the Open Space Master Plan should be incorporated into the Kihei-Makena Community Plan.

#### 4. THE VISION

. 1

Establish a system of parks, utility easements, shoreline areas, drainage ways and wetlands as an open space framework for the urban areas of the region... and provide an integrated system of pedestrian and bicycle paths.

- Objective 'E' of Land Use Policy, Kihei-Makena Community Plan 1998

#### Goal

The goal of the South Maui Region Parks and Open Space Master Plan is consistent with the goal of 'land-use efficiency' proposed in the *Kihei-Makena Community Plan*. The goal is to build a well-planned community with land use and development patterns designed to achieve the efficient installation of an infrastructural network that meets the present and future needs of the community while preserving and enhancing the unique natural character of Maalaea, Kihei, Wailea and Makena. The South Maui Region Parks and Open Space Master Plan implements this goal by, in part, proposing a unified system of non-motorized accesses to community resources.

The publicly endorsed parks and open space vision for South Maui (and expressed in the Community Plan) is for Maalaea, Kihei, Wailea and Makena to share a common system of parks and open space areas connected by bicycle and pedestrian corridors. These open space areas should be located appropriately throughout the community plan region in order to provide, convenient, wide-spread and equal access foe all residents. The open space areas should be of varying size and type so as to best meet the variety of recreation needs of the community. Bicycle and pedestrian corridors should link the parks and open spaces together with a contiguous system of trails and designated pathways. To this end, the following Implementing Actions are recommended:

### **Implementing Actions**

### 1. Establish Priority and Sub-Priority Routes for the Proposed Open Space System

Given the proposed open space system in this document, priority and sub-priority routes should be chosen. Priority routes are those which are considered the most important to

establishing the structure of the open space system. Sub-priority routes refer to specific segments of the priority routes.

### Recommended Priority Routes:

### • Priority Route One: North-South Collector

North-South Collector (or the Liloa Greenway) is the main axis for Kihei's trail system. Funding is currently available to establish both a roadway and a separate-but-adjacent multi-use pedestrian and bicycle corridor as a single integrated system. The goal is to establish a continuous pedestrian easement for the length of the corridor. The preferred location for a multi-use path is the makai side of Liloa Street (North-South Collector). Key segments are;

- o <u>Sub-Priority Route One</u>: Makai-side of the North-South Collector (Liloa Street) from East Lipoa Street to Welakahao Street (opposite the proposed Kihei Community Park).
- O <u>Sub-Priority Route Two</u>: Across the top of Maui Kamaole, Maui Hill, Keawekapu Views and Kilohana Mauka subdivisions. The easement making these linkages needs to be as direct as possible and at least 15 feet wide.
- Sub-Priority Route Three: The design funds currently programmed (FY '02, '03 STIP list) for Liloa Road (North-South Collector) should to be designated for designing the Liloa Transportation Corridor from Kaonoulu Street to Auhana Road. This corridor will incorporate a separate-but-adjacent multi-use path with an adjacent auto/transit roadway.

### • Priority Route Two: The Coastal Heritage Trail

The Coastal Heritage Trail will connect the various state-owned and county-owned coastal lands that stretch North to South, from the old **Kihei Pier** to the **Mana Kai Hotel** into one contiguous waterfront pedestrian corridor that incorporates the Whale Sanctuary , the ancient Kalepolepo fishpond, several county parks , state recreation lands and the Kihei Boat Launch Facility. The Coastal Heritage Trail will consist of a combination of boardwalks, natural trails and paved pathways appropriate to each area. Interpretive signs, focal points and other amenities will enhance and preserve the resources and stimulate economic development of selective coastal businesses.

The creation of this trail should be overseen by the County Department of Parks and Recreation with cooperation from Public Works and key initiatives lead by the South Maui Coastal Heritage Trail Action Committee.

- <u>Sub-Priority Route One</u>: Memorial (Mai Poina Oe Iau) Park to West Lipoa Street should be used as a first phase development. Initiatives currently exist for portions of this segment.
- o Sub-Priority Route Two: Halamua Street to Cove Park.

### Priority Route Three: The East-West Connectors

These are the routes that allow pedestrian access along pathways and designated streets between the ocean and Piilani Highway.

- o <u>Sub-Priority Route One:</u> The drainage way that runs through the new Kaonoulu Village. This trail has the approval of the developer and a name has even been chosen ("Steve Betsill Greenway").
- o <u>Sub-Priority Route Two</u>: The connection along the old Kapu Road., mauka of South Kihei Rd., that connects Lokelani School and Kihei Elementary, via the two wetlands in the area, to the state reservoir (next to St. Theresa's church).
- Sub-Priority Route Three: The open space drainage way makai of the new Kihei
   Community Park site that runs East/West from the new park site to South Kihei Rd.

### 2. Establish "Neighborhood Open Space and Pedestrian Connections Plans"

Neighborhood Open Space plans should be established for each of the neighborhood areas within the planning region from Maalaea to Makena. The neighborhood areas are outlined on the "Index Sheet" of the "Park Inventory" series of maps. The six neighborhoods are Maalaea (Waikapu/Pulehunui), North Kihei (Waiakoa/Kaonoulu/Waiohuli), South Kihei (Waihuli/Keokea/Kamaole), Wailea (Paeahu/Palauea/Keauhou) and Makena (Honuaula).

The intent of each Neighborhood Open Space Plan is to further refine the overall South Maui Region Open Space Master Plan, making adjustments and clarifications as necessary. Community Associations should initiate each Neighborhood Open Space Plan, organizing committees to solicit public input, liaise with landowners, fundraise and take the initiative to make the Open Space Plan a reality.

Each neighborhood has associated Ahupuaa<sup>24</sup> areas delineated on the "Future Vision Plan" maps (in parentheses above). It may be an option to further sub-divide each of the six neighborhoods into these sub-areas. In this way, area-specific tasks can be undertaken by certain groups of individuals living within each Ahupuaa.

### 3. Adopt an Open Space Ordinance

Many municipalities and counties in America have open space protection programs and local taxes that support the purchase and preservation of open space.

A County ordinance should be created that reflects the spirit of the *South Maui Parks and Open Space Master Plan* and achieves the goal of open space preservation. The goal of this new **Open Space Ordinance** should be to guarantee the availability of the components of the proposed open space system in South Maui. These components -- viewed on the "Future Vision Plans", Maps 2 to 7 -- include parks, wetland areas, public rights-of-way, bicycle paths, pedestrian paths and gulches.

The bill for an ordinance establishing open space zoning districts in Title 19 of the Maui County Code that is currently before Council states the following:

The purpose of this ordinance is to implement land use policies consistent with the Maui County General Plan and Community Plans and the land use laws of the State of Hawaii; to protect and preserve Maui County's environmental, cultural, open space, outdoor recreational and scenic resources for present and future generations of Maui County residents; and to promote better urban design and land use planning throughout Maui County.

There shall be two categories of open space district to distinguish between passive and active types of land uses. The following criteria shall be used when establishing the OS-1 "Passive" and OS-2 "Active" Open Space District Categories:

Category	Where Applied
OS-1 (Passive)	Areas designated for open space use on the community plan map primarily to recognize sensitive ecological resources such as threatened and endangered species habitat, wetlands and other similar resources and cultural resources such as Hawaiian Heiau and other significant cultural sites.
OS-2 (Active)	Areas designated for open space use on the community plan map primarily to recognize scenic and recreational resources; hazardous areas; drainage ways; and open space greenbelts that provide visual relief from building mass and buffer sensitive ecological resources or

Ahupuaas were traditional Hawaiian subdivisions of land held by chiefs. They had distinct boundaries, usually natural features like gulches and ridges.

47

 agricultural activities from urbanized areas.
agricultural activities from urbanizea areas.
· O

"Outdoor recreation" means leisure time activities and areas and accessory structures designed primarily for recreational activity in the open air. Examples of leisure time activities include, but are not limited to, hiking, fishing, hunting, clay shooting, camping, picnicking, equestrian activities, paragliding and hang gliding, skateboarding, roller-blading, and mountain biking. Examples of accessory structures and facilities include, but are not limited to, restrooms, play courts, swimming pools, play fields, picnic grounds, tent campgrounds, arboretums, greenways, botanical gardens, petting zoos and paint gun and archery ranges. Golf courses are not included.

### 4. Implement Park Land Recommendations

Detailed recommendations for addressing park and open space issues can be found in Part 5 of Section 2 and are summarized as follows:

- Kihei-Makena will need to more than double its sub-regional<sup>25</sup> park area from 125 acres, to meet the 2010 target of 272 acres. This will require about 18 acres of sub-regional park land acquisition per year. Over the past 10 years, Kihei-Makena has acquired about 8 acres of sub-regional park land per year.
- Create more Mini-Parks. These parks are vital for providing small pockets of open space within walking distance of nearby homes. Given a public demand for more tot lots in the region, these parks will also play an increasingly important role in the future.

### 5. Implement Park Facilities Recommendations

There are three challenges when considering the expansion and upgrading of South Maui's park facilities. They are: (1) meeting present and future recreation needs, (2) the systematic refurbishment of existing parks and facilities and (3) the strategizing of all park elements into a cohesive system.

Recommendations for addressing these three issues can be found in Parts 6 and 7 of Section 2. and are summarized as follows:

Between now and 2010 Kihei-Makena will need an additional 9 tennis courts, 10 sports courts, 3 tot lots, 1 community center and 1 gymnasium. The new 44-acre Kihei Community Park will account for 6 tennis courts, 6 sports fields, 0 sports courts and 3 tot lots. This will also entail developing an 'Infill Strategy' in order to provide needed active

<sup>25</sup> Sub-regional parks consist of District, Neighborhood and Mini-Parks. They do not include beaches. Sub-regional parks respond to Kihei-Makena demand, versus Regional parks which respond to County-wide demand.

recreation facilities on existing under-developed County and State-owned park land. Assuming the above needs are met, between 2010 and 2020 Kihei-Makena will need an additional 3 tennis courts, 2 sports fields, 3 sports courts and 1 tot lot.

- Existing restroom facilities should be refurbished where necessary and new facilities constructed where overused and temporary facilities currently exist. This may entail a park-user survey to determine which facilities are the most used and the most in need of refurbishment (see Part 2 of Section 2: Inventory of Parks and Facilities, for recommendations regarding individual parks).
- Establish a unique and consistent South Maui Parks and Open Space Design Theme for all facilities. This design theme will be conveyed in all park facilities, literature, signage and in the architectural design of park buildings and landscape elements. Related to this action is the creation of South Maui Park Design Standards. This document would stipulate design standards for park buildings, landscape plantings, furniture, fixtures, building and paving materials, signage, etc. The establishment of a unique and consistent South Maui Parks and Open Space Design Theme will engender community pride and it should be aggressively pursued and coordinated by the Department of Parks and Recreation.

# 6. Continue the process of public input into the refinement of the design of the currently proposed 44-acre Kihei Community Park

The general structure and function of the park has been established as the result of 5 public meetings and the design team, but there may be an opportunity to further incorporate other elements at the suggestion of groups of individuals. An example of a 'group' is the adjacent elementary school. An example of an additional element is an interactive water feature/play area for children.

The following ideas were the result of the 5 public meetings held to discuss the Open Space Master Plan and the proposed Kihei Community Park.

- 1. Locate soccer field adjacent to Lokelani playing field and remove fence to promote co-usage of school facilities (including parking).
- 2. Do not fence off playing fields in order to allow for informal activities during off-times.
- 3. Design softball fields for both regular and "slow pitch".
- 4. Explore enclosing the tennis courts in "tent structures" to provide shade ,wind-block, and allow for other uses (small gatherings, etc.).
- 5. Ensure that playing field lights are downward directed in order to limit light pollution.
- 6. Accommodate bike/pedestrian access from all sides including Piilani Highway

- 7. Design the park pavilion to accommodate a possible youth center, vendor space (e.g. refreshment stand), amphitheater and other support uses.
- 8. Create a BMX / mountain bike track in gulch to connect to internal bike path and possible underpass to mauka trails.
- 9. Place large "play fountain" or other water feature near entrance as "gateway" and for cooling play.
- 10. Native dry-land forest trees should predominate.
- 11. The cultural sites should be honored.
- 12. Explore the possibility of placing a gym in the park.

### Other Actions with Open Space Planning Implications

In addition to the network of public open space areas, it is recommended that a core area be established in the geographic center of Kihei. A strong center for the community will provide a stronger 'sense of place' and identity for Kihei. A concentration of civic, institutional and commercial activity should be embedded in central Kihei and not isolated in remote, single-use complexes. Key elements are already in place to facilitate central Kihei as being a hub of private and public investiture and activity. Related to this recommendation is the creation of 'Gates of Kihei'. Typically these will be entry features place at main entrance point to Kihei from Piilani Highway (see 'Future Vision Maps' for locations). These entry features could be designed similar to the entrances to Wailea Resort which communicate the identity of a destination area.



Piilani Highway and Alanui Keallii Street. A possible location for an Entry Gate to Kihei.

As part of the Kihei-Makena Community Plan Update, a **Regional Master Plan** should be drafted. This *Kihei-Makena Urban and Regional Master Plan* would take a regional and integrated approach to the future planned form of Kihei-Makena. It would be appropriate for this type of report to include recommendations for the creation of a strong central core in Kihei. One method for achieving this goal would be the creation of an **overlay district ordinance** specific to an area designated as 'The Center of Kihei'. An approximation of this area can be seen in the graphic below:

## THE CENTER OF KIHEI



The Center of Kihei has the potential to become the hub of civic, institutional and commercial activity. This central area of mixed land-use should have clear edges and a focused center.

Furthermore, within this 'Center of Kihei', created with the adoption of an Overlay Urban Design Ordinance, street beautification should be mandated. Priority rights-of-way should be established and standards drafted (for various street-types) for the enhancement of the public streetscape. Streetscape design standards should include architectural design and storefront setback guidelines, street-tree planting recommendations, street furniture designs, etc. Associated with this initiative should be requirements for the use of recycled water for street tree and foundation planting irrigation purposes.

Overlay zoning applies to zoning districts and regulations applicable to particular buildings, structures and land within individual zones. It is a special zoning district that includes regulations which modify regulations in another zoning district with which the overlay zoning district is combined.

In order to expeditiously encourage the creation of a vibrant Central Kihei, an overlay urban design zoning ordinance would be appropriate for the designated 'Center of Kihei' area. Within this area, higher densities and mixed land uses would be sought for future developments. Higher densities would increase the economic viability of retail and commercial ventures and increase the availability of open space areas. Maui County currently has an Open Space

Incentive System that trades higher density development for more open space area (Chapter 19.56, Maui County Code).

One option is a **density bonus overlay ordinance**. The most effective way to lower housing costs is to lower per/unit land costs by raising the density of units. A 'density bonus'<sup>26</sup> ordinance provides this financial incentive to land developers and has been proven to result in more affordable housing units as well as increased densities.

Mixed-use overlay zoning, that combines commercial and residential uses, is an incentive that can be applied to certain land areas in exchange for increased densities. This incentive has the added benefit of increased land-use diversification and is being used by many communities in North America as a way to re-vitalize depressed downtown cores. It can provide affordable housing and more customers for adjacent businesses while creating vibrant pedestrian-friendly areas with a lot of human activity. Currently, Maui County allows for mixed land uses only in Planned Development areas (Chapter 19.32, Planned Development, *Maui County Code*).

By absorbing growth into existing areas, infill relieves growth pressures on agricultural and rural lands and can improve quality of life for older and developing communities. Infill helps to achieve the goals of "Smart Growth" by supporting existing communities, reducing automobile dependency, preserving agricultural and natural areas, and saving taxpayers the costs of building an expanded infrastructure network to support development that has spread from traditional population centers. An **infill overlay ordinance** can accommodate growth in a community by encouraging and facilitating new development on vacant 'brown field'<sup>27</sup> land, bypassed and underutilized land within areas that already have nearby infrastructure, utilities and public facilities, while addressing the needs of its residents.

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<sup>26</sup> Density bonus means a minimum density increase of at least 25 percent over the otherwise maximum residential density.

27 'Brown field' land is usually taken to mean land previously developed for urban uses, as opposed to 'green field' land which has never been developed.

# 5. PUBLIC PARTICIPATION IN THE SOUTH MAUI PARKS AND OPEN SPACE VISION

Public reaction was overwhelmingly in favor of the proposed South Maui Parks and Open Space vision. The public had 5 opportunities to learn about the Vision and offer feedback. Many of the concerns and issues are listed below. On the whole, consensus and enthusiasm was conveyed for the proposed system of Parks and Open Space Plan in general and the new Kihei Community Park Concept Design in particular.

Because of the new Kihei Community Park's proximity to the schools there was consensus for sports facilities that could be utilized by the schools and the organized sports groups in the community. There was also consensus that the design be flexible enough to accommodate a wide variety of continuous uses ,both active and passive. There was also strong support for an aesthetic feature and native plantings to promote a Kihei 'sense of place'. The following considerations reflect public suggestions to achieve those goals.

### **Summary of the Public Meetings**

#### General Comments

. 1

- 1. Develop the last open area makai of the proposed park (bordered by Welakahao, South Kihei Road, Liloa and Hakekuai) into a passive recreation, 'central park'.
- 2. Establish Liloa 'Greenway' (North-South Collector) as a main axis of a trail system to feed the a 'hub', in central Kihei.
- 3. The 'Greenway' (North-South Collector) easement needs to be established as continuous through to Wailea Alanui.
- There was a strong wish to create a central corridor through the center of Kihei that is as auto free as possible. (e.g. Denver's 14th St. mall, Boulder's Pearl St. mall).

The following is a meeting-by-meeting inventory of the main comments and concerns.

### PUBLIC MEETING #1

Date: March 19, 2002

Place: Kihei Community Center

Attendance: 50 people

Consensus:

- the planning and design process,
- active park areas,
- types of uses in the new park,
- design elements (with some modifications),

- greenway system,
- the maintenance of current park land inventory is important,
- the possible use of the large area makai of the proposed new park for future park expansion.

#### Modifications:

- covered tennis courts,
- a water feature in center,
- low level non-intrusive lighting,
- skateboard facilities on pathways
- and benches.

#### Concerns:

- maintenance,
- safety,
- adequate design to accommodate present and future use,
- aesthetics,
- trees and landscaping (shade),
- adequate drinking fountains.

#### **PUBLIC MEETING #2**

Date: April 15, 2002

Place: Lokelani Intermediate School

Attendance: 50 people

#### Consensus:

- the planning and design process,
- types of park uses,
- · design elements in the new park,
- greenway system as vision for future park,
- maintenance of current parkland inventory,
- the possible use of the large area makai of the proposed new park for future park expansion

#### Modifications:

- a carousel,
- a small Montessori environmental school,
- a youth center,
- preservation of the archeological site in the northwest corner,
- possible High School in makai parcel.

#### Concerns:

- assured access for bicyclists,
- intrusive lighting,
- lack of capital for construction,
- proper priority of ballfield use(schools vs. little league),
- softball usage.

#### **PUBLIC MEETING #3**

Date: May 19, 2002

Place: Kihei Youth Center Attendance: 30 youth

Consensus:

general approval of proposed facilities at the new 44 acre park.

Modifications to the new park:

- playing fields
- "water park",
- skating facilities (for skateboards),
- and some type of amusement attraction (petting zoo, bumper cars, etc),
- also food concessions.
- A gymnasium

#### Concerns:

- that the park would be boring and empty when not in use,
- the greenway to include skateboard facilities and get built.

#### **PUBLIC MEETING #4**

Date: June 12, 2002

Place: Maui Bicycle Club Attendance: 75 People

Consensus:

park and greenway vision

#### Modifications:

- connections to Piilani bikepath and park,
- adequate path-widths for multiple uses,
- multiple bike racks,
- someplace for BMX bicycles (perhaps gulch in park)

#### Concerns:

• that greenway go all the way through to Wailea Alanui (especially at Kilohana Mauka).

#### **PUBLIC MEETING #5**

Date: July 8, 2002

Place: American Association of Retired Persons for South Maui

Attendance: 50 People

Consensus: 50

- the process,
- · proposed new park activities,
- · makai parcel potential expansion,
- the greenway vision.

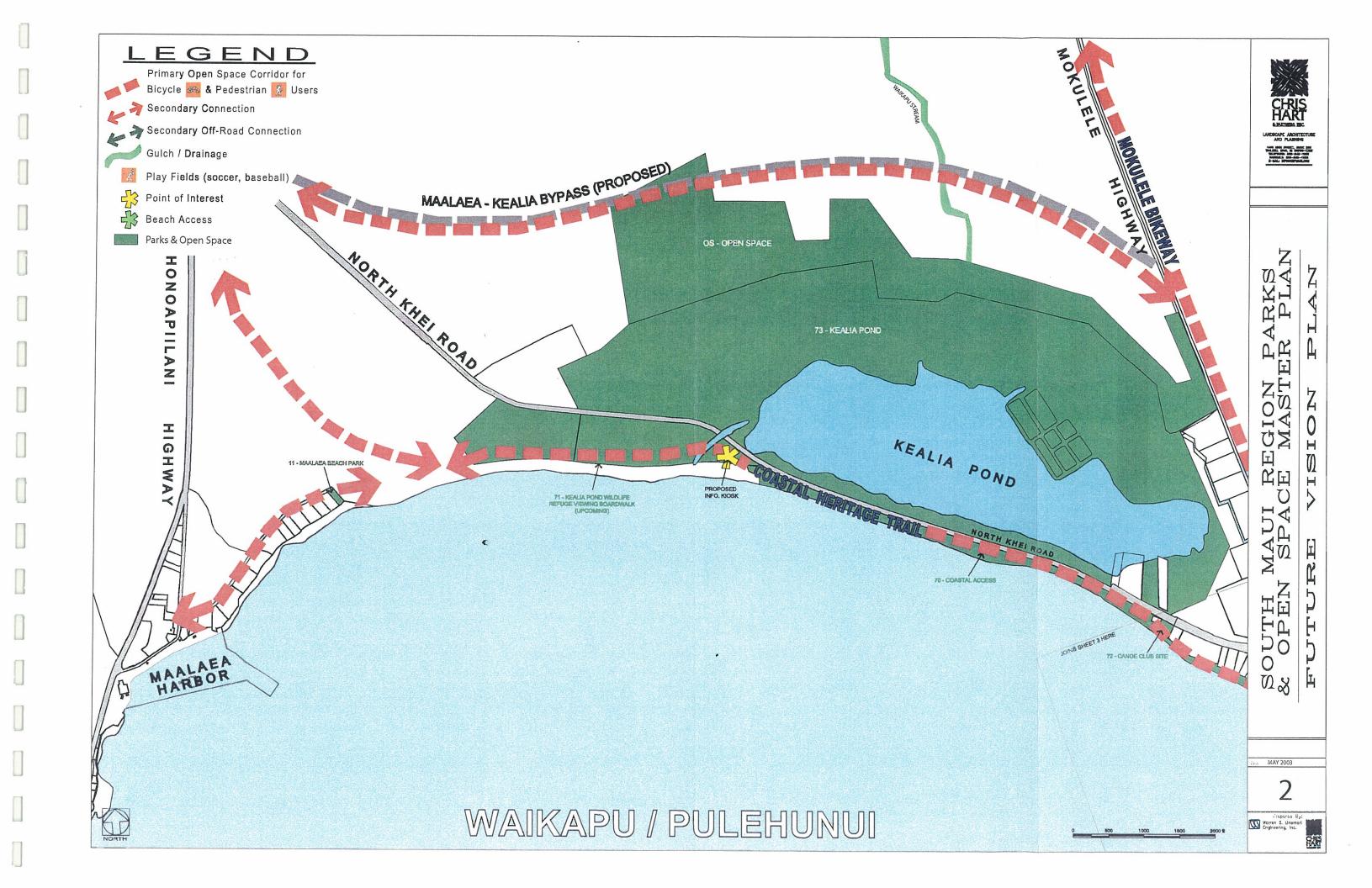
#### Modifications:

- lots of benches,
- drinking fountains,
- an extra comfort station
- more trees
- a water fountain as a central focus.

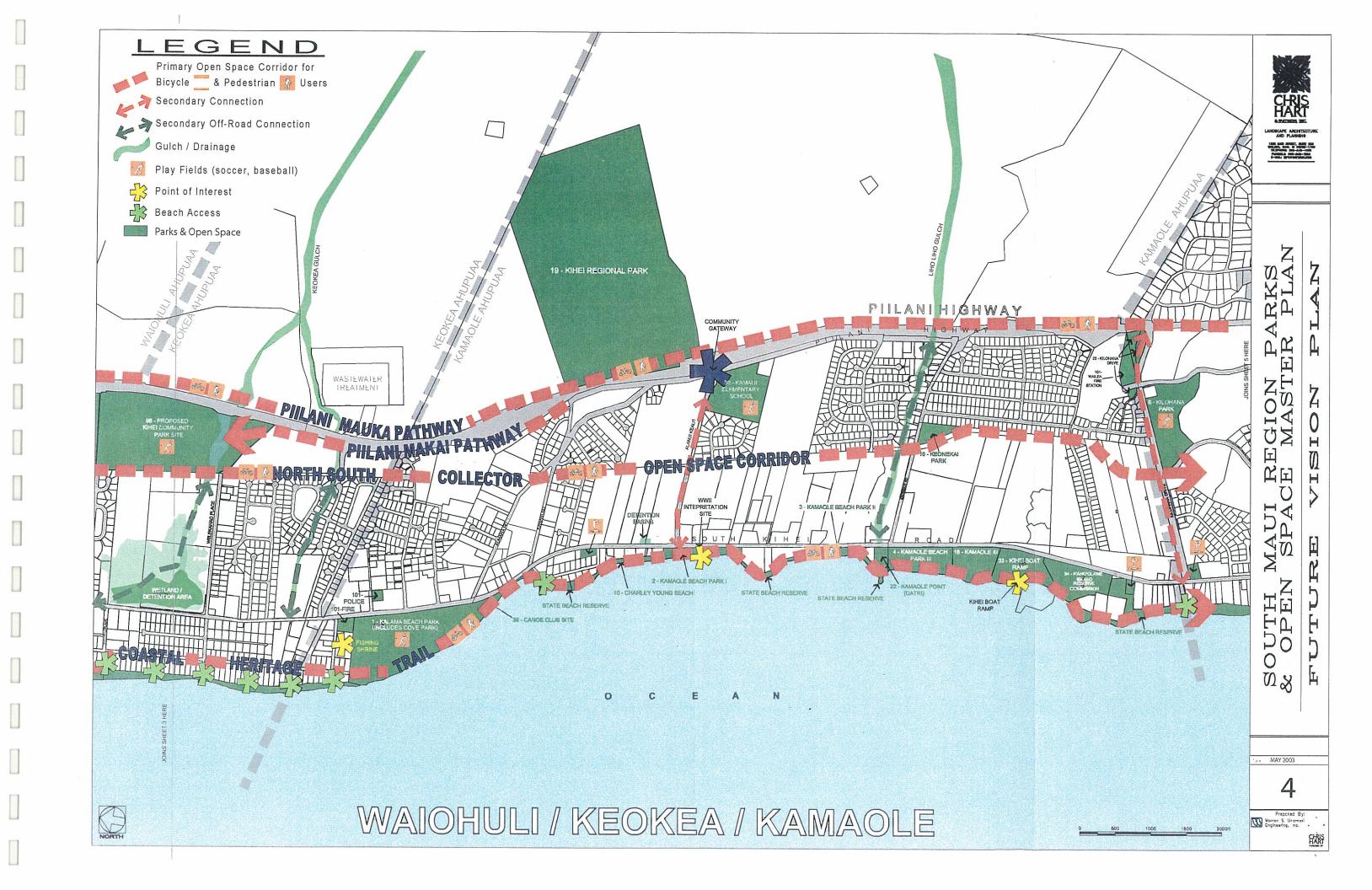
### Concerns:

- safety,
- lighting,
- greenway to be built ASAP!

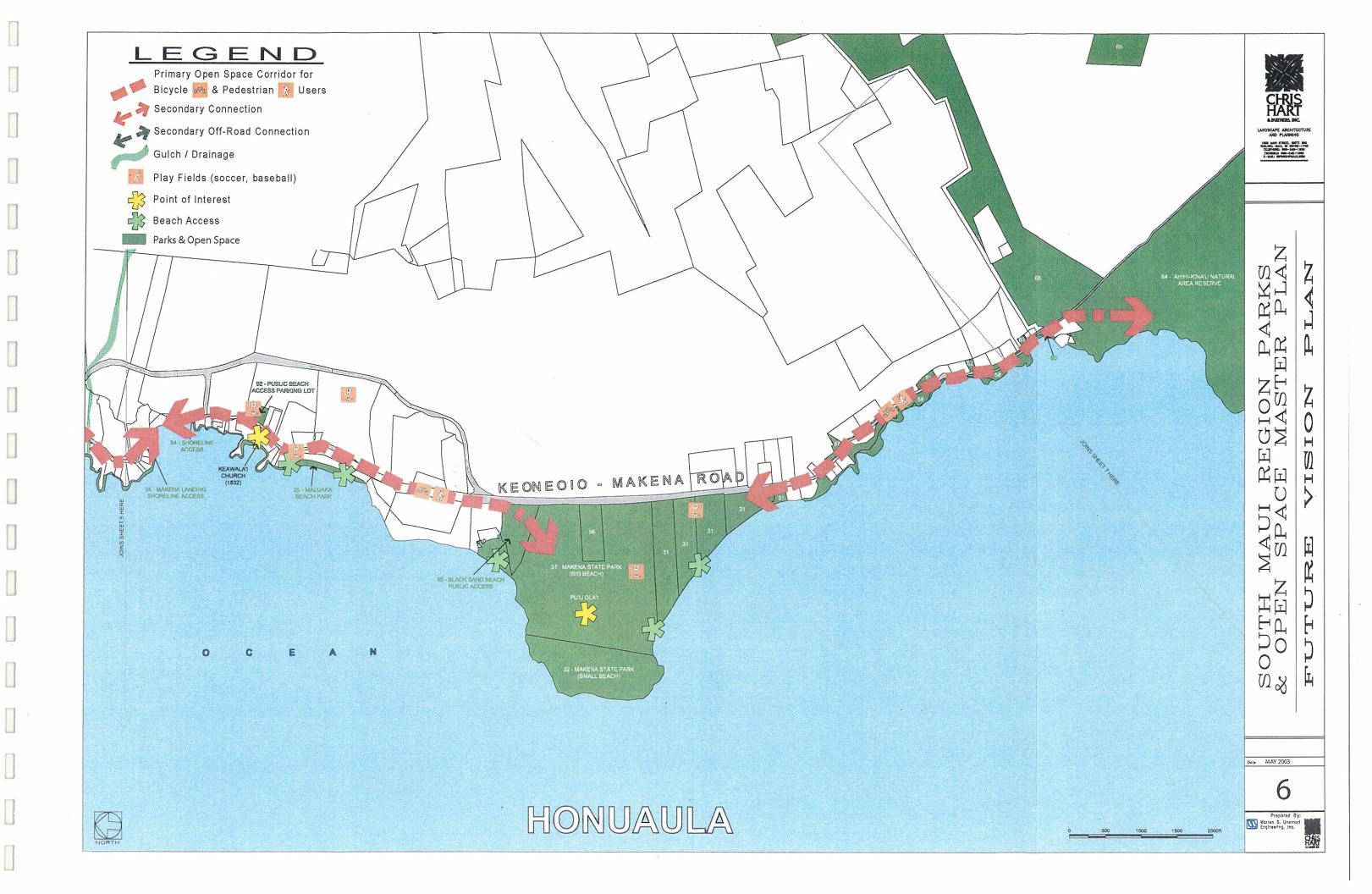
	BY SITE NUMBER	SHEET NUMBER		BY SITE NAME	SHEET NUMBER
1	KALAMA BEACH PARK (& COVE PARK)	4	64A	AHIHI-KINAU NATURAL AREA RESERVE	
2	KAMAOLE BEACH PARK I	4	64B	AHIHI-KINAU NATURAL AREA RESERVE	7
3	KAMAOLE BEACH PARK II	4	21	BALDWIN - MALAMA BASIN / SOCCER FIELD	3
4	KAMAOLE BEACH PARK III	4	74-84	BEACH ACCESS LOTS	3 & 4
5	KALEPOLEPO BEACH PARK	3	86-87	BEACH ACCESS LOTS	4
6	KIHEI MEMORIAL PARK (MAPOINA DE LAU)	3	91,92,93,97	BEACH ACCESS LOTS	5 & 6
7	KENOLIO RECREATION COMPLEX	3	55	BLACK SAND BEACH (ONEULI)	6
8	KILOHANA PARK	4	52	CANCE CLUB SITE	3
-	POOLENALENA PARK (CHANG'S)	5	72	CANCE CLUB SITE	22
9		4	10	CHARLEY YOUNG PARK	4
10	CHARLEY YOUNG PARK	2	70	COASTAL ACCESS	2
11	MAALEA BEACH PARK	3	14	HALE PIILANI SUBDIV. PARK	3
12	KENOLIO PARK	3	34	KAHOOLAWE ISLAND RESERVE COMMISION	4
13	KIHE) BEACH RESERVE (WAIPUILANI PK.)	3	1	KALAMA BEACH PARK (& COVE PARK)	4
14	HALE PILLANI SUBDIV, PARK	3	5	KALEPOLEPO BEACH PARK	3
15	KENOLIO PARK (SEWAGE PUMP STATION)	4	30	KAMALII ELEMNTARY SCHOOL	4
16	KEONEKAI PARK	3	2	KAMAOLE BEACH PARK I	4
17	LEI (HORITA'S) BEACH PARK	4	3	KAMAOLE BEACH PARKJI	4
18	MAUI PEACE PARK		1 4	KAMAOLE BEACH PARK III	4
19	KIHEI REGIONAL PARK	4	-1		4
20	KIHEI COMMUNITY & AQUATIC CENTERS	3	22	KAMOLE POINT	2
21	BALOWIN - MALAMA BASIN / SOCCER FIELD	3	73	KEALIA POND	2
22	KAMOLE POINT	<u> </u>	71	KEALIA POND WILDLIFE REFUGE BOARDWLK	3
23	KILOHANA DRIVE & WAILEA FIRE STATION	4	12	KENOLIO PARK	3
24	MAKENA LANDING	6	15	KENOLIO PARK (SEWAGE PUMP STATION)	3
25	MALUAKA BEACH PARK (MAUI PRINCE)	6	7	KENOLIO RECREATION COMPLEX	4
26	PALAUEA BEACH PARK	5	16	KEONEKAI PARK	3
27	KIHEI CHARTER SCHOOL	3	13	KIHEI BEACH RESERVE (WAIPUILANI PK.)	4
28	KIHEI ELEMENTARY	3	33	KIHEI BOAT RAMP	3
29	LOKELANI INTERMEDIATE SCHOOL	3	27	KIHEI CHARTER SCHOOL	3
30	KAMALII ELEMNTARY SCHOOL	4	20	KIHEI COMMUNITY & AQUATIC CENTERS	3 & 4
31	MAKENA-ONELOA PARK (BIG BEACH)	6	98	KIHEI COMMUNITY PARK (PROPOSED)	3 3 4
32	SMALL BEACH	. 6	28	KIHEI ELEMENTARY	3
33	KIHE! BOAT RAMP	4	- 6	KIHEI MEMORIAL PARK (MAPOINA CE LAU)	<u>3</u>
34	KAHOOLAWE ISLAND RESERVE COMMISION	4	19	KIHEI REGIONAL PARK	
35-50	STATE BEACH RESERVE	3 & 4	23	KILOHANA DRIVE & WAILEA FIRE STATION	4
51	REGULATION RESERVOIR	3	8	KILOHANA PARK	4
	CANCE CLUB SITE	3	17	LEI (HORITA'S) BEACH PARK	3
52 53	POOLENALENA PARK (CHANG'S) -SEE #9	5	99	LIGHTHOUSE SITE	7
	SHORELINE ACCESS	6	29	LOKELANI INTERMEDIATE SCHOOL	3
54	BLACK SAND BEACH (ONEULI)	6	11	MAALEA BEACH PARK	2
55	MAKENA-ONELOA STATE PARK - SEE #31	6	91	MAKENA BCH ACCESS #104	5
56		7	24	MAKENA LANDING	66
64A	AHIHI-KINAU NATURAL AREA RESERVE	7	31	MAKENA-ONELOA PARK (BIG BEACH)	6
64B	AHIHI-KINAU NATURAL AREA RESERVE	7	56	MAKENA-ONELOA STATE PARK -SEE #31	6
65-69	STATE OF HAWAII	2	25	MALUAKA BEACH PARK (MAUI PRINCE.)	6
70	COASTAL ACCESS	2	18	MAUI PEACE PARK	4
71	KEALIA POND WILDLIFE REFUGE BOARDWLK	2	26	PALAUEA BEACH PARK	5
72	CANCE CLUB SITE	2	101	POLICE AND FIRE	4
73	KEALIA PONO	3 & 4	90	POLO BEACH ACCESS	5
74-84	BEACH ACCESS LOTS	4	- 9	POOLENALENA PARK (CHANG'S)	٠ 5
86-87	BEACH ACCESS LOTS	4	53	POOLENALENA PARK (CHANG'S) - SEE #9	5
85	PUBLIC PARKING (KEAWAKAPU BEACH)		1 85	PUBLIC PARKING (KEAWAKAPU BEACH)	4
88	WAILEA BEACH PARK ACCESS	5	<b>-</b> [		3
89	WAILEA BEACH ACCESS COASTAL WALK	5	51	REGULATION RESERVOIR	6
90	POLO BEACH ACCESS	5	54	SHORELINE ACCESS	6
91	MAKENA BCH ACCESS #104	5	32	SMALL BEACH	3 & 4
92,93,97	BEACH ACCESS LOTS	5 & 6	35-50	STATE BEACH RESERVE	7
98	KIHEI COMMUNITY PARK (PROPOSED)	3 & 4	65-69	STATE OF HAWAII	5
99	LIGHTHOUSE SITE	7	89	WAILEA BEACH ACCESS COASTAL WALK	
100	WHALE SANCTUARY SITE	3	88	WAILEA BEACH PARK ACCESS	5
		4	100	WHALE SANCTUARY SITE	3

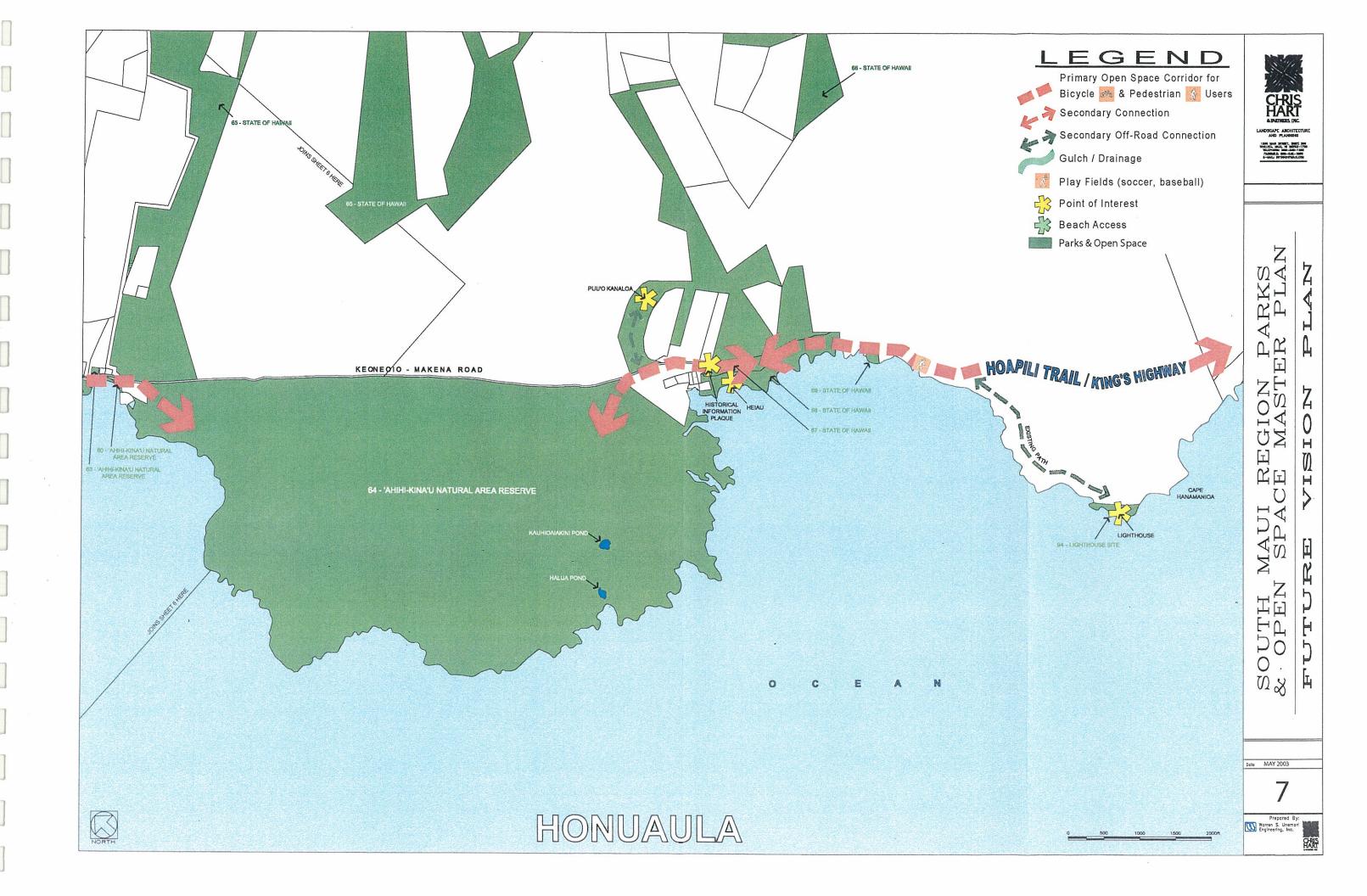






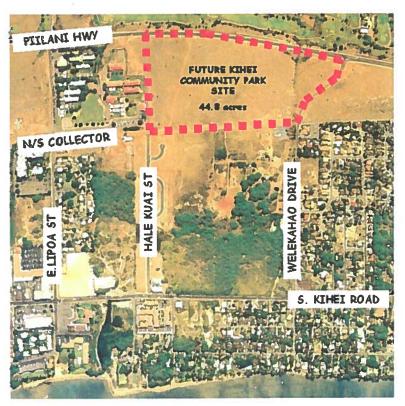






### IV. THE KIHEI COMMUNITY PARK PLAN

### 1. SITE DESCRIPTION



### Location

The future site of the Kihei Community Park is located on the makai side of Piilani Highway, adjacent and south of Lokelani Intermeditae School and between Hale Kuai Street and Welakahoa Drive. It is 44.833 acres.

### Site Features

An ephemeral stream traverses the southern 1/4 of the site. This is Keokea Stream and it originates in Keokea Gulch above Puu O Kali. It is in a steep-sided gully that has exposed rock cliffs up to 24 ft. high.

The site has a gentle to moderate slope from east to west. Slopes range from 3% to 20%, with the majority of the site under 10%. The site is flattest to the northeast, next to Piilani Highway. Below this, a slight ridge runs north-south between the 60 ft and 80 ft contours from Lokelani School to the edge of the Keokea Stream gully. In the center of the site, below the steepest sections of this ridgeline, is a relatively flat 2 acre area. The Keokea Stream gully separates the main part of the site from a 2-3 acre area at the southeast corner of the site. Visibility of the entire site is restricted to the upper terrace area at points of rock outcropping.

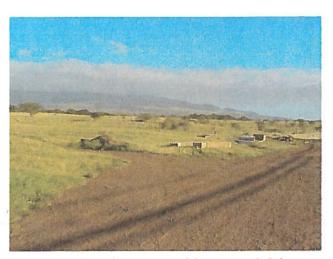
Pulehu clay loam is the predominant soil within the parcel area. It is an upland alluvial wash with moderate permeability and slow runoff. The eastern edge of the site is an extremely stony

silty clay loam, eroded and up to 15% exposed stone<sup>28</sup>. Bedrock is also exposed along the upper terrace slope and along crests of ridges, particularly near Keokea Stream.

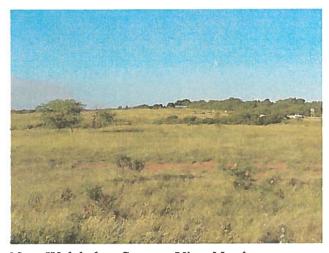
Vegetation within the park site consists of Kiawe (*Prospis pallida*), kou (*Cordia* subcordata), Spanish needle (*Bidens pilosa*), khaki weed (*Alternanthera* repens), Australian saltbush (*Atriplex semibaccata*) and assorted grasses. Grasses consist of sandbur (*Cenchrus echinatus*), bristly foxtail (*Seteria verticillata*), California grass (*bracharia mutica*), wiregrass (*Elusine indica*) and fountain grass (*Pennisetum setaceum*). Grass coverage is almost over the entire site.



North/South Collector Corridor - View North



North/South Collector Corridor - South View



Near Welakahao Street - View North



Near Piilani Highway - View North

<sup>28</sup> Donham, T.K., 1990.

Site History
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The park site was originally owned by Haleakala Ranch Co. Inc. The entire area, including the adjacent school sites and community center site, were planned for development by the Baldwin-Malama Group in the 1980s. Originally these lands would have been muaka of the Piilani Highway, prior to it's re-alignment. In 2001, \$2.4 million in bond monies was used to purchase up to 69 acres of the undeveloped balance of Project District 5 in the *Kihei-Makena Community Plan*. The 44-acre parcel (TMK 2-2-02:42) was chosen to be the location of a new community park.

Despite being part of the kula, or barren area (dry, scrub zone defined by rainfall patterns, soil and vegetation types) and also being uninhabited prior to the introduction of cattle to the area, the site does have some significance in terms of cultural history. As documented in "Archaeological Inventory Survey" (April 1990) and "Archaeological Data Recovery Plan" (July 1990), there are six sites of interest located within the 44-acre parcel boundary. The survey included approximately 30 acres in addition to the 44 acres north of Welakahao Drive. However, all other archaeological sites in this area were destroyed by human activity prior to 1990. The remaining six sites were assessed by Paul H. Rosenthal Inc. (PHRI) as having significant information value at the regional and local level. Nine other sites were located, these were mapped, measured, described, photographed and tested during the inventory survey, and were determined to contain no additional significant information. The six sites of interest were recommended for further data recovery. To this date, no further data recovery has taken place. Two other archaeological surveys were conducted on the site prior to the PHRI survey. One was conducted in 1977 by Cordy and the other was conducted in 1982 by Environmental Impact Statement Corporation (EISC). Sites located by these two surveys were either rediscovered by PHRI or have been destroyed.

The six sites recommended for further data recovery (1710, 2512, 2514, 2516, 2519, 2522) contain four terraces (2512-Features C and D; 2519; and 2522-Feature B), three low-walled enclosures (2512-Feature B and 2516-Features A and B), two platforms (2512-Feature A and 2514), a C-shape (2522-Feature A), a high-walled enclosure (1710) and a rock pile (2512-Feature E). The two platforms indicate temporary and possibly permanent habitation. Site 1710 is the only site with a cultural deposit. It was hypothesized in the survey report for the project area that the sites to be studied would probably post-date 1500 AD<sup>29</sup>.

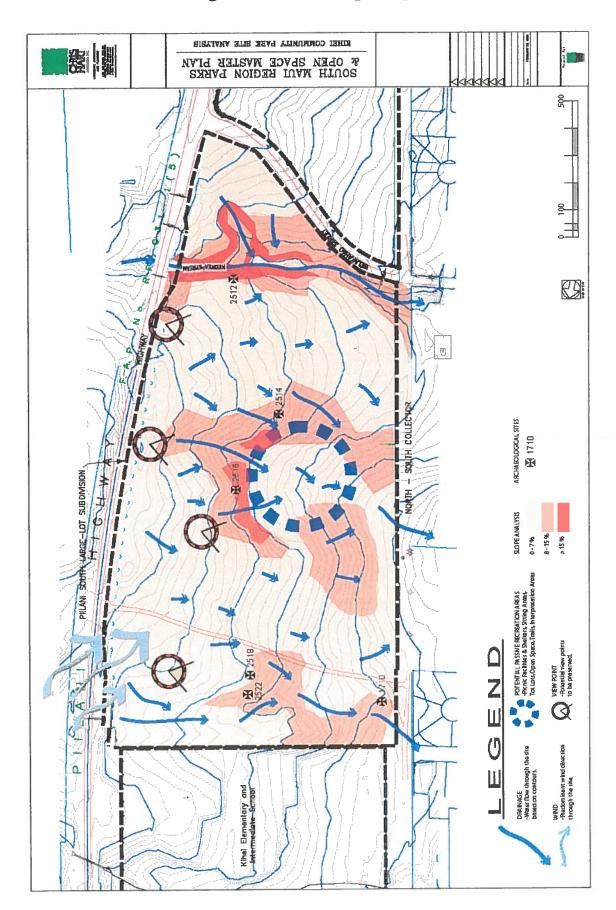
<sup>29</sup> Donham, T.K., 1990.

### Site Analysis

. 1

The image on the following page shows the major site elements that influenced design decisions. These elements were; (1) Wind, (2) Topography & Slopes, (3) Drainage, (4) Views and (5) Archaeology

Site analysis revealed the areas most feasible to placement of the baseball and soccer fields and which areas would be well-suited to passive recreation pursuits. Slope analysis revealed a relatively flat area in the center of the site, with a natural bowl-shape, opening to the west. This will become the site of a central building and possibly an amphitheater. Wind is a factor on the site and more detailed design will take this into account and mitigate it as best as possible. Viewpoints were noted during site analysis and will be preserved and enhanced with seating and/or play areas. The archaeology of the site is interesting, as discussed earlier, no park elements are to be built on these sites. In fact, it may be possible to highlight their presence, as at least four sites occur along the trail that runs North – South through the site.



### 2. THE PARK DESIGN

The park design is a result of two main factors: (1) Existing Site Conditions and (2) Community Recreation Facility Needs. The park design responds to the various site conditions discussed above, while incorporating as many as possible of the recommended facilities by the County of Maui Parks and Recreation Department. The park will include the following facilities:

- •3 Baseball Fields (1 Lighted)
- •3 Soccer Fields
- 6 Tennis Courts
- •3 Comfort Stations
- Bicycle / Walking Paths (approx. 1.5 miles)
- Parking for 320 vehicles
- •One Central Building (Youth Center, Pavilion Building)
- An Outdoor Amphitheater

The design process that lead to the final configuration of the park components was arrived at through various planning stages. The site analysis was first completed and it informed the placement of the large fields as well as revealing a flat area in the center of the site that could be ideal for a central building location. The ridge that runs north-south through the site was used as an organizing element as it determined the alignment of the main bike / pedestrian trail as well as some of the picnic areas which occupy key view points. Site history and archaeological records also revealed potential points of interest along the bike / pedestrian trail. At least two iterations of the park plan were completed and discussed amongst the consultant team, before the final Concept Plan was decided upon.

The fields were placed according the their size requirements and site conditions. Wind concerns dictate that baseball be placed on the lower half of the site as this area may be less wind-affected than the upper portions. Orientation of the baseball fields are in keeping with design guidelines which recommend that the batter *not* face into the sun<sup>30</sup>. The lower two baseball fields are oriented to allow a sharing of one comfort station as well as temporary facilities during organized competitions that would occupy both fields simultaneously. Further, the orientation of the center baseball field allows for the creation of a large open space next to and west of the central building area (youth center, pavilion). This is important for allowing open space for unprogrammed activities to take place (such as 'pick-up' games of soccer, ultimate Frisbee, etc.).

<sup>30</sup> P.61, Graphic Standards for Landscape Architects, Austin, Dunbar, Hulvershorn and Todd, 1986

The location of the tennis center was considered to be appropriate as it is a facility that won't be impacted by being separated from the main area of the park. The gulch presents a barrier to access to the tennis center, however a bike / pedestrian trail could provide a connection. In the future, a bike / pedestrian bridge crossing may be one consideration for providing permanent access across the span of the gulch. Wind-break tree plantings are important to the success of this area for use for tennis.

Tot lots and play equipment are placed near parking areas. Two upper tot lots are located to provide an option for small children to play while other family members are using the upper soccer fields.

Central, upper picnic area is located to take advantage of views to the ocean. Wind and sun might be a concern in this area. However, with the placement of wind-break trees and shade trees these concerns can be mitigated.

An amphitheater located in the center of the park could provide outdoor entertainment for park visitors. It could lend itself to programmed events and supplement organized functions occurring at the central building and adjacent open space area (festivals, fund raisers, community fair, etc.). It is located in a naturally occurring bowl that could be further shaped to accommodate approximately 100-500 persons, depending on the type of seating (grass slope or stepped seating, etc.).







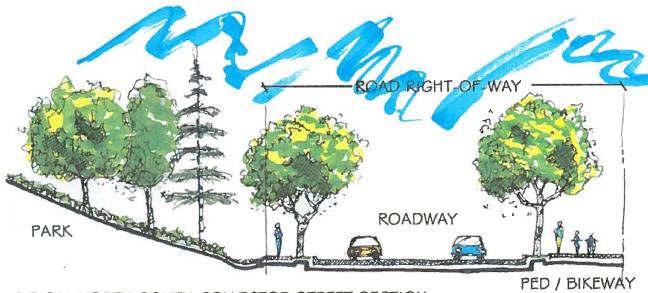
The future Kihei Community Park will have numerous sports fields and park trails.



At the South-East corner of the park site, a tennis center will be located. At least six tennis courts are possible here. With additional retaining wall construction near the gulch, two more could be added in the future.



A centrally located community building, with outdoor amphitheater, picnic and play areas will serve as the hub of the park.



TYPICAL NORTH-SOUTH COLLECTOR STREET SECTION

Looking South along the proposed North-South Collector, which runs next to the park. Pedestrian and bicycle traffic will be encouraged along this open space corridor.

### 3. PARK FEATURES

### **Park Structures**

### Comfort Station - Toilets

There are at least 3 locations where these should be located in the future Kihei Community Park.

A simple design using a gable roof & split-face cement blocks painted white.

A hip roof design that uses split-face cement blocks painted reddish brown.



Toilets at Kihei Boat Ramp



A typical liquid waste pump station in Kihei

The building at right is a simple structure using split-face blocks, painted sand-red. Note the painting on the building, possibly by children who use the Kihei Youth Center. Also note the lattice motif created with cement blocks.



Toilet at Kenolio Complex, N. Kihei

### Community Building / Pavilion

A community building will function as a community meeting place for formal and informal gatherings. Possible building facilities to include: toilets, kitchen, stage, storage, change / locker room for performers.

The building at right uses a double-pitch, hip roof design and cinder block structure. Its style is similar to that of Dickey or Ives in Hawaii during the 1920's. It functions as a concession & scorekeepers booth, with toilets and maintenance storage. Note the deep overhangs which provide shade.



Park Building at Keopuolani Park

The building at right is and example of the type of facility that could be constructed at the proposed Kihei Community Park. The facility at right offers an open gathering space of about 5000 square feet, with a staging area, storage space and a kitchen.



Inside the Wailuku Community Center Bldg.

A concession building should be located somewhere in the park. It might also be used for storage and have toilets.



### Outdoor Amphitheater

An amphitheater located in the center of the park could provide outdoor entertainment for park visitors. It would be located in a naturally occurring bowl that could be further shaped to accommodate from 100-500 persons, depending on the type of seating used (grass slope or stepped seating, etc.).

The area at right is at the Maui Arts and Cultural Center. It is a wide, shallow sloping amphitheater. The proposed space at the Kihei

Community Park would need to be steeply-sloped and about half the squarefootage.



Outdoor stage at the MACC in Kahului.

### **Tennis Center**

The tennis center would need to accommodate at least six courts, with possible expansion of two more near the gulch. Wind breaks would also be needed, most likely Norfolk Pine. The tennis center at right is located in Wailuku.



Wells Park Tennis Center

### **Examples of Park Furniture and Amenities**

### Seating Areas

Seating should include picnic tables in designated areas, benches for viewing and at passive locations as well as bleachers at the baseball fields. Barbeque pits should be incorporated into the design of picnic areas. Shade is very important in these areas as well. Passive areas need to be well-shaded in order to encourage frequent use by a wide demographic of users with differing interests and activity levels as well as during all times of day and weather.



Bleachers and dugout at Keopuolani Park



A covered picnic table Keopuolani Park.



BBQ picnic area at Keopuolani Park



A seating area under the shade of a tree at the Whale Sanctuary in Kihei

Seating areas within the park should be located in protected - out of the wind - areas, when possible. This is particularly important considering the site's topography and exposure.

### Play Equipment



Play Equipment: Well-shaded with a padded 'Fall Zone' for safety.



Play equipment with benches, but with no shade.

### Lighting



12-foot down-light at wells Park Tennis Center

Stadium lighting



Typical 12-foot security light standard



### Signage

Signage for the proposed park should be in keeping with an agreed upon style and format reflected in all South Maui parks. Since the Wailea Community Association has an effective and

attractive format for its park areas, those in Kihei could be in keeping with this style. Although, in order to distinguish the Kihei-area from that of Wailea, colors and materials could differ.



One option for 'Kihei Community Park' signage, main entrance



A possibility for park signage, at secondary entrances



Signage at Keopuolani Park



Signage from the Wailea Community Association jurisdiction. Possible main entry signage of a similar style at the proposed Kihei Community Park

### **Fencing**



Fencing at Kenolio Park, Kihei. It serves to keep balls in and dogs out, but is not a very attractive design solution.



Fence with a Screen Planting of Hibiscus, at a Private Development

### **Trails**



The Wailea Coastal Walk trail is an appropriate type of trail for pedestrian traffic



A wide trail with asphalt surfacing is appropriate for bikes and pedestrians. Surfacing material can also include crushed stone.

### Plant Material

Plant material should be drought-tolerant. Use should be made of reclaimed water from the main that runs inside the Liloa Street right-of-way. See Appendix B: Recommended Plant Material.

### Other Amenities



Water fountains for children and adults. Some fountains even accommodate dogs.



A water-play area is one possibility as a main park attraction and feature element...

4.	HOW DOES THE PARK FIT INTO THE VISION?
	e proposed Concept Master Plan for the new Kihei Community Park fits into the communen en space vision in the following ways:
1.	The new park provides needed facilities as demanded by the community and confirme by the current inventory assessment.
	The park plan was based upon perceived demand by the community of Kihei, as recommended by the Parks and Recreation. The current inventory assessment confirmed need for these facilities and their inclusion in the proposed park will help to reduce the community's recreation facilities deficit.
2.	It will provide a central location for recreation activities to occur in close proximity to schools and near the geographic center of Kihei. It has the potential to become a key component within a system of parks and open spaces. It is adjacent to the North-South Collector, which is a key future pedestrian and bicycle corridor.
	The park location was specifically chosen for its proximity to existing schools as well as it connection to the future North-South Collector.
	"The site is generally located adjacent to the Lokelani School campus. It is strategically located below the Piilani Highway, has direct access to abundant recycled water for irrigation and abuts the planned North South Collector Bikeway system." – p.24-12, Coun of Maui Budget 2002, Capital Improvement Program.

# APPENDIX A: PARK PROPOSAL DETAILS

### SUMMARY OF COST FOR KIHEI COMMUNITY PARK

· 1

8/9/2002

MAJOR ITEM	<u>ESTIM</u>	MATED COST
Site Work	\$	2,998,500
Access Road Along N/S Collector	\$	61,585
Internal Road	\$	87,360
Parking Lots	\$	412,228
Internal Walkways 4 Ft. Wide	\$	70,376
Two-Way (8 Ft. Wide) Bike Path Along N/S Collector, incl. Bridge	\$	152,506
Three Soccer Fields	\$	854,008
One Baseball Field	\$	633,814
Two Little League Fields	\$	462,560
Six Tennis Court, incl. Lighting	\$	850,000
Three Restroom Buildings	\$	450,000
Drainage System	\$	488,800
Water System	\$	162,000
Sewer System	\$	260,500
Planting and Irrigation	\$	2,060,000
SUM OF ALL ITEMS:	\$	10,004,237
15% CONTINGENCY:		1,500,636
PROBABLE ESTIMATED CONSTRUCTION COST:	\$	11,504,873

### ORDER OF MAGNITUDE ESTIMATE FOR KIHEI COMMUNITY PARK

2-26-02

Printed: 2/26/2002

							2-26-02
_		Approx.			Unit		
Description		Quan.	Uni	<u>.</u>	Price		Total
SITE WORK:							
Mobilization			L.S			¢.	60.000
Clearing & Grubbing		44			3,000.00	\$ '\$	60,000
Excavation (Mass Grading)		104,000			14.00		132,000
Embankment		134,000	,		6.50	•	1,456,000 871,000
Dust Fence		5,900	,		25.00		147,500
Dust Abatement		0,000	1+1	, ψ	Allow	,	220,000
Grassing (for erosion control)		28	Ac	\$	4,000.00		112,000
				<del></del>		·	
		ī	Sub	total	- Site Work:	\$_	2,998,500
OADWAY AND PARKING:		-					
Access Road (Along N/S Collector)	!						
Fine Grading		23,010	s.f.	\$	0.30	\$	6,903
2" A.C.		288	ton	\$	82.00	\$	23,616
6" UTB		863	ton	\$	30.00	\$	25,890
Primer		894	gal.	\$	4.00	\$	3,576
Signs		4	each	\$	400.00	\$	1,600
	Subtotal	- Access R	oad (Alone	1 N/S	Collector):	\$	61,585
Internal Road			oud (/ lion	, 170	Concetory.	Ψ_	01,000
Fine Grading		32,000	s.f.	\$	0.30	\$	9,600
2" A.C.		400	ton	\$	82.00	\$	32,800
6" UTB		1,200	ton	\$	30.00	\$	36,000
Primer		1,240	gal.	\$	4.00	\$	4,960
Signs		10	each	\$	400.00	\$	4,000
			Subtotal	- Inte	rnal Road:	\$	87,360
Parking Lots						Ψ <u></u>	07,000
Fine Grading		99,480	s.f.	\$	0.30	\$	29,844
2" A.C.		2,144	ton	\$		\$	175,808
- · ·· - ·				т		*	170,000
6" UTB		3,730	ton	\$	30.00	\$	111 900
		3,730 3,869	ton gal.	\$ \$		\$ \$	111,900 15,476

**************************************		Approx.			Unit		
	Description	Quan.	Unit		Price		Total
	Striping Roadway Signs	10	each	\$	Allow 400.00	,	8,000 4,000
PARTICIPATION			·		arking Lots:	·	412,228
Acceptant State of St	A.C. Walkway (4 ft. wide)				g #0101	*-	172,220
	Fine Grading	27,000	s.f.	\$	0.30	\$	8,100
- Comme	2" A.C.	338	ton	\$	82.00	\$	27,716
Amma-Anta-Anta-Anta-Anta-Anta-Anta-Anta-Ant	6" UTB	1,012	ton	\$	30.00	\$	30,360
<i>(</i>	Primer	1,050	gal.	\$	4.00	\$	4,200
Statistical Administration of the Control of the Co			Subtotal	- A.C	. Walkway;	 \$_	70,376
A very de la constant	TWO-WAY BIKE PATH (8 FT. WIDE) ALONG N/S	COLLECTO	ıR.				
	Fine Grading	13,000	s.f.	\$	0.30	\$	3,900
~~~	2" A.C.	162	ton	\$	90.00	\$	14,580
minutes ( a constant	6" UTB	486	ton	\$	35.00	\$	17,010
Company State	Primer	504	gal.	\$	4.00	\$	2,016
	Relocate Existing Fire Hydrant	4	each	\$	2,000.00	\$	8,000
	Roadway Signs	20	each	\$	350.00	\$	7,000
Paramantenantenantenantenantenantenantenant	Pedestrian / Bike Path Bridge 8 ft. wide with one pier in middle	100	1.f.	\$	1,000.00	\$	100,000
RESIDENCE PARKET	Subtotal - Tv	vo-Way Bike	Path Along	g N/S	Collector:	\$_	152,506
generally.	THREE SOCCER FIELDS						
	Top Soil (6" thick)	6,667	c.y.	\$	24.00	\$	160,008
S.J	Grassing .	360,000	s.f.	\$	1.00	\$	360,000
- Comments of the Comments of	Chain Link Fencing 5 ft. high	4,200	l.f.	\$ .	20.00	\$	84,000
Section 201	Lighting	1	each	\$ 2	50,000.00	\$	250,000
A CONTRACTOR OF THE CONTRACTOR			Subtotal -	Soco	cer Fields:	\$_	854,008
None of the Control o	ONE BASEBALL FIELD:						
Marriemen	Fine Grading	173,400	s.f.	\$	0.25	\$	43,350
	Top Soil (6" thick)	3,211	c.y.	\$	24.00	\$	77,064
San	Grassing	173,400	s.f.	\$	1.00	\$	173,400
Co-company of the company of the com	<ul> <li>Backstop including Perimeter Fencing</li> </ul>	1	each	\$ 5	50,000.00	\$	50,000

Description	Approx. Quan.	Ĺ	Init	Unit Price			Total
Dugout Shelter				1 1100			Total
Lighting	2	_	ach	\$ 20,000		-	40,00
	1	e:	ach ——	\$ 250,000	0.00	\$	250,000
	•	Subto	otal -	Baseball Fig	eld:	\$	633,814
TWO LITTLE LEAGUE / SOFTBALL FIELDS							
Fine Grading	25,120	,	s.f.	\$ 0.	.25	ሱ	0.000
Top Soil (6" thick)	465			\$ 24.		\$	6,280
Grassing	25,120		-	_	00	\$	11,160
Backstop including Perimeter Fencing	2	ea		Ψ 1. \$ 45,000.		\$ •	25,120
Dugout Shelter	4	ea		\$ 20,000.		\$	90,000
Lighting	1	ead		\$ . 250,000.(		\$ \$	80,000 250,000
						Ψ	230,000
	Subtotal - Little	e Leagu	ie / S	Softball Field	s:	\$	462,560
TENNIS COURTS:		t		•			
Tennis Court including Base Course, AC Pavement, Striping and Perimeter Fencing, In-place Complete	6 .	eac	h \$	100,000.0	0	\$	600,000
Lighting	1	se	t \$	250,000.0	0	\$	250,000
	;	Subtota	ıl - Te	ennis Courts	: (	\$	850,000
RESTROOM BUILDINGS:  Restroom Building including all Electrical and Plumbing, Fixtures, Piping and Security, Inplace Complete	3	each	\$	150,000.00	) \$	\$	450,000
	Subtot	al - Res	stroo	m Buildings:	\$		450,000
DRAINAGE SYSTEM:							<del></del>
60" CAP	1,700	l.f.	\$	160.00	ው		070 000
SDMH CAP	4	each	φ \$	160.00	,		272,000
SDMH Conc.	3	each	φ \$	3,500.00	\$		14,000
Inlet Wing Wall & Apron	1	each	φ \$	5,000.00	\$		15,000
Outlet Structure	1	each	у \$	8,000.00 4,000.00	\$ •		8,000
15" HDPE or PVC Drainline	1,100	l.f.	Ψ \$	-	\$		4,000
Prefabricated Grated Catch Basin (HDPE)	8	each	э \$	50.00	\$		55,000
Grass Lined Drainage Swale	2,880	l.f.	•	2,000.00	\$		16,000
72" Perforated Culvert for Subsurface Drainage	120		\$ ¢	10.00	\$		28,800
Detention System  iData\01Proj\01102\Est\	ILU	l.f.	\$	500.00	\$		60,000

Printed: 2/26/2002

Description	Approx. Quan.	Unit		Unit Price		Total
Outlet Structure 6" Perforated Drain Line on mauka sid Tennis Courts	1 e of 350	each	•	2,000.00 40.00		2,000 14,000
	S	Subtotal - [	Orain	age System:	\$	488,800
WATER SYSTEM:						
· 12X8 Tapping Tee	1	each	\$	1,200.00	\$	1,200
8" Tapping Valve	1	each	\$	500.00	\$	500
8" DI Pipe for Fire Protection	1,300	l.f.	\$	60.00	\$	78,000
8" GV w/ SVB	1	each	\$	500.00	\$	500
8" Sleeve	2	each	\$	200.00	\$	400
Fire Hydrant Assembly, In-place Comple		each	\$	3,000.00	\$	9,000
Type A Water Lateral	2	each	\$	2,000.00	\$	4,000
1½" Copper Line Air Valve w/ MH	1,950	l.f.	\$	30.00	\$	58,500
8" CAP	2,	each	\$	1,800.00	\$	3,600
	2	each	\$	75.00	\$	150
Conc. Thrust Blocks	9	each	\$	350.00	\$	3,150
DWS Field Crew Charges				Allow	\$	3,000
		Subotal -	· Wat	er System:	\$_	162,000
SEWER SYSTEM:						
8" PVC Line	2,300	l.f.	\$	75.00	\$	172 500
SMH 5 Ft. Deep	9	each	\$	4,500.00	\$	172,500 40,500
SMH 8 Ft. Deep	2	each	\$	7,500.00	\$	15,000
Connect to Existing SMH	2	each	\$	2,000.00	\$	4,000
Sewer Lateral	3		\$	1,500.00	\$	4,500
Class B Pavement Restoration	4,000	s.f.	\$	·	\$	20,000
Traffic Control	·		т		\$	4,000
	5	Subtotal -	Sewe	er System:	\$	260,500
		Sl	JM C	OF ITEMS:	\$ :	7,944,237
		15% CC	ITNC	NGENCY:		1,191,636
*PROBA	BLE ESTIMATED C	ONSTRU	CTIC	ON COST:	\$ <u> </u>	9,135,873
				<del>.</del>	_	,

<sup>\*</sup> This cost doesn't include Landscaping costs.

Printed: 2/26/2002

# ASSUMPTIONS MADE IN DEVELOPING CONSTRUCTION COSTS FOR KIHEI COMMUNITY PARK

### 1. Site Work

- 1.1 All excavated material will be used onsite even if it may mean breaking the rocks down to 6 inch minus before use in the embankment.
- 1.2 There will be an import of 30,000 c.y.

### Roadway and Parking

- 2.1 Access Road will be 20 feet wide with pavement structure of 2" A.C. over 6" UTB. No curb and gutter or sidewalk will be required.
- 2.2 Internal roads will also be 20 feet wide with no curb and gutter or sidewalks.
- 2.3 Parking lots will have the same pavement structure as the roads. However concrete curbing will be installed around the perimeter of the parking lot.
- 2.4 Walkway within the park will be 4 feet wide with 2 inch pavement over 6 inches of base.
- 2.5 North/South Bike Path:
  - 2.5.1 Will be 8 feet wide to accommodate 2-way bike traffic. Pavement will be 2" A.C. over 6" of base.
  - 2.5.2 An 8 feet wide 100 feet long pedestrian / bike path bridge will be constructed across Keokea Gulch.

### 3. Soccer Fields

- 3.1 Three (3) soccer fields including 5 feet high perimeter fencing will be constructed near the top of the project site next to Pillani Highway.
- 3.2 Only one of those fields will be lighted.

PERALIMINATE VELSAN ASSESSMENT STREET	Assur	Comm nption ary 26,	nunity Park s Made in Developing Construction Costs , 2002
general Justinia (d	4.	One E	Baseball Field
Notice and the second s		4.1	One baseball field, including backstop, perimeter fencing, and dugouts will be constructed.
glissou walioto		4.2	This field will also be lighted.
	5.	Little	League or Softball fields
Asserting Asserting Continues Contin		5.1	Two of these fields, including backstop, perimeter fencing and dugouts will be constructed.
Mentonana		5.2	Only one of these fields will be lighted.
Constant Constant	6.	Tenni	is Courts
Agricology bearing manning		6.1	Three (3) double tennis courts will be constructed on the north side of Welakahao Street.
Accommendation of the contraction of the contractio		6.2	Only one of these courts will be lighted.
->	7.	Restro	ooms
Available of the state of the s		7.1	Three (3) identical restroom buildings will be constructed for the project; two on the north side of Keokea Gulch and one adjacent to the tennis courts.
		7.2	Fire protection for these buildings will be provided by extending the recycled water line up to these buildings. The irrigation meter and sprinkler system will be connected to these fire lines.
Newson and Comment of	8.	Potab	ole Water
All the control of control of the co		8.3	Potable water will be provided by two separate meters that will be connected to the 18 inch transmission line within the N/S Collector Road corridor for the restrooms and other potable-use. DWS approval will be
Addynation of growth and the state of the st			required to tap directly onto their 18 inch transmission line.

Kihei Community Park Assumptions Made in Developing Construction Costs February 26, 2002

### 9. Sewer System

- 9.1 Wastewater from the northern restrooms will be directed into the existing gravity system on Halekuai Street in Kihei Franks Subdivision.
- 9.2 Wastewater from the restroom near the tennis courts will be directed in the existing gravity system on East Welakahao Street.

### 10. Drainage

- 10.1 There is an existing 60 inch culvert on Piilani Highway, which directs runoff from the mauka lands onto the northwest corner of the park site. This runoff will be conveyed along the northerly boundary in a 60 inch culvert and directed into a natural drainage gully approximately 540 feet northwest of the project site.
- 10.2 It is anticipated that there will be a slight increase in runoff due to the hard surfaces (parking lots and roadways) that will be constructed as part of the project. Small diameter catch basins will be installed within each parking lot to collect and convey runoff to a subsurface detention facility that will be installed on the north side of the entry road. A small release line will be provided to convey runoff across the access road to an existing low point below this road.

# APPENDIX B: RECOMMENDED PLANT MATERIAL

# PLANT MATERIAL REFERENCE CHART (South Maui Parks Open Space Master Plan)

TIER 1: PREFERRED PLANT MATERIAL

LAM         E         45         S         M         M/M         upright         incomp.         arm           Hourt         PI         100         M         M         H/M         upright         incomp.         arm           Gendis         I         25x15         M         M         H/M         upright         white         ssm           Gendis         PI         25x35         F         M         H/M         upright         white         ssm           Gendis         PI         25x35         F         M         M/M         upright         white         ssm           WAILAN         PI         25x35         F         M         M/M         upright         white         ssm           WAILAN         PI         30x30         F         M         M/M         spreading         incomp.         ssm           WAILAN         PI         30x30         F         M         M/M         spreading         incomp.         ssm           WAILAN         PI         M/M         spreading         white         ssm           WAILAN         PI         M/M         spreading         white         ssm	PALMA   E	ame ame	status h	size height x width growth rate	growth rate	water use	salt/wind tol.	growth habit	flower	exposure	best use
	PALAM	PALMS									The second secon
Part	OCONDITION         FIT         M         H/H         upright         incomp.           SOCONDITION         S         S         A         H/H         upright         white           S         S         A         H/H         upright         white           NITCRUE)         PI         25x35         F         M         L/M         spreading         yellow           All TRUE)         PI         25x35         F         M         L/M         spreading         white           All ANAILAN         PI         30x30         F         M         L/M         spreading         white           All ANAILAN         PI         30x30         F         M         L/M         spreading         white           All ANAILAN         PI         30x30         F         M         L/M         med spreading         white           All ANAILAN         PI         30x30         F         M         M/M         spreading         white           All ANAILAN         PI         30x30         F         M         M/M         spreading         red           All ANAILAN         PI         30x30         F         M         M/M         med spreading <td>LOULU PALM Pritchardia aragana</td> <td>m)</td> <td>45'</td> <td>S</td> <td>Σ</td> <td>M/M</td> <td>upright</td> <td>inconsp.</td> <td>uns</td> <td>accent planting</td>	LOULU PALM Pritchardia aragana	m)	45'	S	Σ	M/M	upright	inconsp.	uns	accent planting
1   25x15	State   Stat	NIU, COCONUT	PI	100,	Σ	.¥	Н/Н	noright	4340041		
1   25/15   M	String   1   25x15	Cocos nucifera						0	denosii	line	accelli, sireet, parks
is secontial         1         25%15         M         H/M         upright         white         sun           NI (TRUE)         P1         25%35         F         M         H/H         spreading         (male)         sam-shade           NI (TRUE)         P1         60%40         M         M         M/M         upright         white         sun           All (MAVALIAN)         P1         30%29         F         M         M/M         upright         connece         sun           st conductant         P1         30%29         F         M         M/M         upright         connece         sun           st conductant         P1         30%29         F         M         M/M         spreading         white         sun           st conductant         P1         30%29         F         M         M/M         spreading         white         sun           st conductant         P1         30%20         F         M         M/M         spreading         white         sun           st conductant         P1         30%20         F         M         M/M         med. spreading         white         sun           condescontant         P1 <td>  25x15 M M H/M upright white   1</td> <td>TREES</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>THE REAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS</td> <td>White the second second</td> <td>######################################</td> <td>and the same and appropriate to the same and the same and</td>	25x15 M M H/M upright white   1	TREES						THE REAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS	White the second	######################################	and the same and appropriate to the same and
File   Fig.	Stretchins   Pl   25x35   F   M   H/H   spreading   (mile)	HALA*	_	25'x15'	M	×	H/M	upright	white	uns	accent planting
Registering (Ham inophyllum (Ham inophyllum)         P	N1* (TRUE)         PI         255.35         F         M         HH         spreading         yellow           N1* (TRUE)         PI         605.80         F         M         LM         spreading         inconsp.           Altan inophyllum         E         605.80         F         M         LM         white           Subcordata         PI         305.25         F         M         MM         upright         orange           subcordata         PI         505.40         F         M         MM         upright         orange           subcordata         PI         505.40         F         M         MM         upright         orange           subcordata         PI         505.40         F         M         MM         upright         orange           sin populocentra         PI         505.40         F         M         MM         spreading         villow           derect polymorpha         PI         505.40         F         M         MM         mod. spreading         yellow           may a shilis         PI         357.25         M         MH         MM         upright         yellow           ARHINA         I	Pandanus tectorius		!		:	:		(male)		Quantum damage
Milecular   Mile	No.   City   No.   No.	HAU*	Ы	25'x35'	ш	Σ	H/H	spreading	yellow	sun-shade	specimen; arbor
	Name         MIAM         Upright         white           Mann inaphyllum         E         60x80°         F         M         LM         spreading         inconsp.           Mann inaphyllum         E         60x80°         F         M         MM         upright         orange           Maccordian         PI         30x20°         F         M         MM         upright         orange           sin populnea         PI         30x20°         F         LM         M/M         spreading         white           sin populnea         PI         30x20°         F         LM         M/M         spreading         white           LESHINA         PI         30x20°         F         M         M/M         spreading         red,           Mass allis         PI         50x40°         F         M         M/M         spreading         red,           Mats allis         PI         35x25°         M         M-H         M/M         spreading         white           MALINA         1         3x3°         M         M-H         M/M         spreading         red,           AHINA         1         15x15°         F         M         L/L </td <td>Hibiscus tiliaceus</td> <td>: 1</td> <td></td> <td></td> <td></td> <td>1</td> <td>:</td> <td></td> <td></td> <td>street, accent</td>	Hibiscus tiliaceus	: 1				1	:			street, accent
Kotal         LVM         spreading         inconsp.         eum           MAMAILANI         P1         30v22         F         M         M/M         upright         orange         sun           subcordian         P1         30v22         F         M         M/M         spreading         white         sun           subcordian         P1         30v20         F         LAM         M/M         spreading         white         sun           subcordian         P1         30v20         F         LAM         M/M         spreading         white         sun           subpollules         E         25x25         M         LAM         M/M         spreading         red         sun           description         P1         35x25         M         M-H         M/M         spreading         white         sun-shade           mall-decress         P1         15x15         F         M         M/M         spreading         white         sun-shade           mall-decress         P1         M         M         H         M         M/M         spreading         white         sun-shade           mall-desided         P1         M         M	Kota Milanti Indonsium         E         60x80         F         M         L/M         spreading         inconsp.           (H4WAIIAN)         P1         30x25         F         M         M/M         spreading         white           1 sa populuen         P1         30x20         F         L/M         M/M         spreading         white           1 sa populuen         B1         30x20         F         L/M         M/M         spreading         red,           1 sa populuen         B1         30x20         F         M         M/M         spreading         red,           1 sa stilis         P1         30x20         F         M         M/M         spreading         red,           1 sa stilis         P1         35x25         M         M-H         L/L         upright         red,           Al**         B1         M/M         M/M         spreading         white           Al**         B2         B3x25         M         M/M         spreading         white           B2 Al**         B         M/M         M/M         spreading         white           B3x3         M         M         L/L         spreading         white	KAMANI* (TRUE)	H	60'x40'	Σ	Σ	M/M	upright	white	uns	screen, accent
koa         Corange         Sun         Spreading         incorrsp.         sun           (HAVALIAN)         P1         30x25         F         M         M/M         white         sun           seboordata         P1         30x30         F         M         M/M         spreading         white         sun           seboordata         P1         30x30         F         LM         M/M         spreading         white         sun           sin populicat         E         25x25         M         LM         M/M         spreading         yellow         sun           destrictlish         P1         35x25         M         M-H         LL         upright         red         sun-shade           AHINA         1         35x25         M         M-H         M-H         LL         upright         red         sun-shade           AHINA         1         35x25         M         M-H         M/M         spreading         white         sun-shade           AHINA         1         35x35         M         M-H         M/M         spreading         white         sun-shade           AHINA         1         15x15         S         L-M	kea         boxsov         F         M         M/M         spreading         incorasp.           (HAWMIAN)         P1         30x25         F         M         M/M         spreading         white           1*** selectedata         P1         50x50         F         M         M/M         spreading         white           1** sa populusa         P1         30x30         F         LM         M/M         spreading         white           1** LEIUA*         E         25x25         M         LM         M/M         spreading         red,           nes sopulusa         P1         30x30         F         LM         M/M         spreading         red,           num sa stilis         P1         30x40         F         M         M/L         mod, spread         red,           NA**         P1         35x25         M         M-H         L/L         upright         red,           NA**         P1         15x15         F         M         M/M         spreading         white           NA**         P1         L/L         spreading         white         red,           NA**         LA**         L/L         spreading         white	Calophyllum mophyllum	ני		ţ						
P1         30x25         F         M         MM         upright         orange         sun           P1         30x50         F         L-M         M/M         spreading         white         sun           P1         30x50         F         L-M         H/M         med. spreading         red, sun         sun           P1         30x40         F         M         M/M         spreading         red, sun-shade         sun           P1         35x25         M         M-H         L/L         upright         red         sun-shade           P1         15x15         F         M         M/M         spreading         white         sun-shade           F         10x4;         F         M         L/M         upright         white         sun-shade           S         L-M         L/M         upright         white         sun-shade           S         L-M         L/M         upright         white         sun-shade           S         L-M         L/M         upright         white         sun           S         L-M         L/M         upright         red,         sun           S         L-M	PI         30x25'         F         M         MMA         upright         orange           PI         50x30'         F         L-M         H/M         red, white         white           PI         30x30'         F         L-M         H/M         red, white         red, white           PI         25x25'         M         L/M         M/M         spreading         vellow, yellow, yellow           PI         35x25'         M         M-H         L/L         upright         rod           PI         15x15'         F         M         L/M         white         white           F         10x4;         F         M         L/M         upright         yellow           S         1         5x8'         M         L/M         M/M         round         white           S         1         6x8'         M         L/M         monight         white           S         L-M         M/M         round         round         round         ream	NOAT Acacia koa	ū	90.x80.	<u>.</u>	Σ	Z/W	spreading	inconsp.	ะเกร	streets, parking
P1         50x,50°         F         L-M         H/M         med, spreading         white         sun           P1         30x,30°         F         L-M         H/M         med, spreading         red, sun         sun           P1         50x,40°         F         M         M/M         spreading         red, sun         sun           P1         35x,25°         M         M-H         L/L         upright         red         sun-shade           P1         15x,15°         F         M         M/M         spreading         white         sun-shade           P1         3x,25°         M         M/M         H/H         multi-branch         purple         sun-shade           P1         3x,3°         M         M/M         H/H         multi-branch         purple         sun-shade           E         10x,4°         F         M         L/L         spreading         inconsp.         sun           sis         E         15x,10°         M         L/L         upright         velloe         sun           sis         E         20x,15°         S         L-M         M/M         round         sun           sis         L	PI         50x50         F         M         MM         spreading         white           PI         30x30         F         L-M         H/M         med. spread         yellow           PI         25x25         M         L/M         M/M         spreading         red,           PI         35x25         M         M-H         L/L         upright         red           PI         15x15         F         M         M/H         multi-branch         purple           PI         15x15         F         M         L/L         spreading         white           F         10x4         M         M         L/L         spreading         white           F         10x4         L/M         upright         yellow           S         L-M         M/M         round         inconsp.           F         15x15         S         L-M         M/M         round         white           F         15x16         M         L/L         upright         yellow           F         20x15         S         L-M         M/M         round         ream	KOU* (HAWAIIAN)	PI	30'x25'	ſĿ,	Σ	M/M	upright	orange		med consum
Pi    30x30    F	Pi	Cordia subcordata						)	b		etreet narking
Pi 30x30 F L-M HM med.spread yellow sun	Fi   30x30   F   L-M   H/M   med. spreading   red, red, orpha   pi   50x40   F   M   L/M   M/M   spreading   red, yellow   yell	KUKUI*	PI	50'x50'	į.	Σ	M/M	spreading	white	uns	streets, parking
H   30x30 F   L-M   H/M   med. spreading   red, sun	Pi 30x30 F	Aleurites moluccana			: 1		1	m or ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			0
E         25x25°         M         L/M         M/M         spreading yellow yellow         red, yellow yellow         sun           se         PI         35x25°         M         M-H         L/L         upright red, red sun-shade         white sun-shade           se         PI         15x15°         F         M         M/H         mulit-branch         purple         sun-shade           se         PI         15x15°         F         M         L/M         purple         sun-shade           se         1         3x3°         M         M         L/L         spreading         white         sun-shade           se         15x15°         S         L-M         L/L         upright         white         sun-shade           sis         E         20x15°         S         L-M         M/M         round         nronsp.         sun	PI         25'x25'         M         L/M         M/M         spreading         red, yellow inconsp.           Se         PI         35'x25'         M         M-H         L/L         upright         rod           Se         PI         15'x15'         F         M         M/H         multi-branch         purple           I         3'x2'         M         M         H/H         multi-branch         purple           E         10'x4;         F         M         L/M         upright         yellow           E         10'x4;         F         M         L/M         upright         white           I         6'x8'         M         L-M         M/M         round         inconsp.           Sis         E         20'x15'         S         L-M         M/M         round         cream	MILO*	<u>-</u>	30'x30'	Ĺž	Ž Ž	H/M	med. spread	yellow	uns	background, accent
pl         50x40         F         M         M/L         mcd. spreading         yellow         sun           pl         50x40         F         M         M/L         mcd. spread         yellow         sun           pl         35x25         M         M+H         L/L         upright         red         sun-shade           pl         15x15         F         M         M/M         white         sun-shade           g         10x4;         F         M         L/M         upright         yellow         sun-shade           g         10x4;         F         M         L/L         spreading         inconsp.         sun           g         12x15         S         L-M         L/L         upright         white         sun-shade           g         15x10         M         M         L/L         upright         white         sun-shade           g         20x15         S         L-M         L/L         upright         round         cream           g         20x15         S         L-M         M/M         round         cream         sun	pl         50 x 20         M         L/M         M/L         mcd. spread         yellow           pl         35 x 25         M         M-H         L/L         upright         red           pl         35 x 25         M         M-H         L/L         upright         red           pl         15 x 15'         F         M         M/H         multi-branch         purple           pl         15 x 15'         F         M         L/L         spreading         white           pl         10 x 4;         F         M         L/L         spreading         inconsp.           pl         12 x 15'         S         L-M         L/L         upright         white           pl         15 x 15'         M         M         L/L         upright         white           pl         15 x 15'         M         M         L/L         upright         white           pl         15 x 15'         M         M         L/L         upright         white           pl         6x8         M         L-M         M/M         round         inconsp.           pl         6x8         S         L-M         M/M         round	Thespesia populinea		· · · · · · · · · · · · · · · · · · ·		 					
Pi   50x40   F   M   M/L   mcd. spread   inconsp.   sun     Pi   35x25   M   M-H   L/L   upright   red   sun-shade     I   3x3   M   M   H/H   multi-branch   purple   sun-shade     I   3x3   M   M   L/H   upright   yellow   sun-shade     E   10x4;   F   M   L/L   spreading   inconsp.   sun     I   6x8'   M   L-M   M/M   round   inconsp.   sun     E   20x15;   S   L-M   M/M   round   round   inconsp.   sun     E   20x15;   S   L-M   L/L   upright   yelloe   sun-shade	PI   50×40   F   M   M/L   mcd. spread   inconsp.	Onl A LEnoA . Matroxidence noluments	r)	.C7 X C7	Σ	E C	M/M	spreading	red,	uns	specimen, accent
PI         35×25°         M         M-H         L/L         upright red sun-shade         sun-shade           PI         15×15°         F         M         M/M         spreading         white sun-shade         sun-shade           I         3×3°         M         M         H/H         multi-branch         purple         sun           E         10×4°         F         M         L/M         upright         yellow         sun           is         E         15×10°         M         M         L/L         upright         white         sun-shade           is         E         15×10°         M         M         L/L         upright         white         sun-shade           E         20×15°         S         L-M         M/M         round         inconsp.         sun           E         8×8°         S         L         M/M         round         sun	Pi   35x25° M	THE TIME	: : : :	50'x40'	; ; ;		NAG	Toolse Process	yellow	and the property of the sales o	street
PI         35'x25         M         M-H         L/L         upright         red         sun-shade           PI         15'x15'         F         M         M/M         mulii-branch         purple         sun-shade           E         10'x4;         F         M         L/M         upright         yellow         sun-shade           is         12'x15'         S         L-M         L/L         upright         white         sun           is         15'x10'         M         M         L/L         upright         white         sun-shade           E         15'x10'         M         M         L/L         upright         yellow         sun           E         20'x15'         S         L-M         M/M         round         round         sun           E         8'x8'         S         L-M         M/M         round         sun	PI         35x25         M         M-H         L/L         upright         red           I         15x15'         F         M         M/M         white         white           I         3x3'         M         M         H/H         mulit-branch         purple           E         10x4;         F         M         L/M         white         yellow           Is         12x15'         S         L-M         L/L         wpright         white           I         6x8'         M         L-M         M/M         round         inconsp.           E         20x15'         S         L-M         M/M         round         inconsp.           E         8x8'         S         L-M         M/M         round         cream	Artocamus altilis	:		•	Ē	MILE	med. spread	inconsp.	uns	specimen
PI         15x15'         F         M         M/M         spreading         white         sun-shade           1         3x3'         M         M         H/H         mulit-branch         purple         sun           E         10x4;         F         M         L/M         upright         yellow         sun-shade           Is         E         12x15'         S         L-M         L/L         upright         white         sun           I         6x8'         M         L-M         M/M         round         inconsp.         sun           E         20x15'         S         L-M         M/M         round         cream         sun	PI         15x15'         F         M         M/M         spreading         white           I         3x3'         M         M         H/H         mulit-branch         purple           E         10x4;         F         M         L/M         upright         yellow           is         E         12x15'         S         L-M         L/L         upright         white           i         6x8'         M         L-M         M/M         round         inconsp.           E         20x15'         S         L-M         L/L         upright         yelloe           E         20x15'         S         L-M         M/M         round         cream	OHI'A'AI*	. Id	35'x25'	M	M-H	77	upright	red	sun-shade	Specimen
1   3×3   M   M   H/H   mulit-branch   purple   sun-shade     1   3×3   M   M   H/H   mulit-branch   purple   sun     2   10×4;   F   M   L/M   upright   yellow   sun-shade     2   12×15   S   L-M   L/L   spreading   inconsp.   sun     3   6×8   M   L-M   M/M   round   inconsp.   sun     1   6×8   M   L-M   M/M   round   inconsp.   sun     2   20×15   S   L-M   L/L   upright   yelloe   sun     3   8×8   S   L   M/M   round   cream   sun     3   S   L   M/M   round   cream   sun     4   S   S   L   M/M   round   cream   sun     5   S   S   D   M/M   Round   cream   sun     6   S   S   D   M/M   Round   cream   sun     7   S   S   D   M/M   Round   cream   sun     8   S   S   D   M/M   Round   Cream   sun     8   S   S   D   M/M   Round   Cream   S   S   D     8   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   M/M   Round   Cream   S   S   D     9   S   S   D   S   S   D   S   S   D   S   S	1   15'x15'   F   M   M/M   spreading white     1   3'x3'   M   M   H/H   mulit-branch   purple     2   10'x4;   F   M   L/M   upright   yellow     2   12'x15'   S   L-M   L/L   upright   white     3   1   6'x8   M   L-M   M/M   round   inconsp.     3   1   6'x8   M   L-M   M/M   round   inconsp.     4   20'x15'   S   L-M   L/L   upright   yelloe     5   20'x15'   S   L-M   L/L   upright   yelloe     6   20'x15'   S   L-M   L/L   upright   round   round   cream     9   1   1   1   1   1   1   1   1   1	Syzugrum malaccense	1				\$ *				
s         E         10'x4;         F         M         H/H         mulit-branch         purple         sun           censis         E         12'x15'         F         M         L/L         spreading         inconsp.         sun-shade           censis         E         15'x10'         M         M         L/L         upright         white         sun-shade           s         1         6x8'         M         L-M         M/M         round         inconsp.         sun           m         E         8'x8'         S         L-M         M/M         round         cream         sun	I 3'x3' M M H/H mulit-branch purple   purple     S	*INON	PI		Ŀ	Σ	M/M	spreading	white	sun-shade	specimen, background
AU* Divide Sun annication of the sun construction of the sun construction of the sun-shade sun-shade sun-shade sandwicensis E 12'x15' S L-M L/L spreading inconsp. sun sandwicensis E 15'x10' M M L/L upright white sun-shade sapp.  1 6'x8' M L-M M/M round inconsp. sun sun sun cream sun sun cream sun sun cream sun	Auxiliary Construction of the construction of	Morinda citrifolia	-	21,421	· ×	M	חית	and the second s	the state of the second of the	; ;	
AU*         E         10x4;         F         M         L/M         upright         yellow         sun-shade           Invicensis         E         12x15'         S         L-M         L/L         spreading         inconsp.         sun           **         **         E         15x10'         M         M         L/L         upright         white         sun-shade           **         **         **         **         **         **         **         **           **         **         **         **         **         **         **         **           **         **         **         **         **         **         **         **           **         **         **         **         **         **         **         **           **         **         **         **         **         **         **         **           **         **         **         **         **         **         **         **    **APPICATION OF THE COUNTY OF	AU*         E         10x4;         F         M         L/M         upright         yellow           I vicensis         E         12x15'         S         L-M         L/L         spreading         inconsp.           *         **         L-M         M         M         M         Mile           *         *         1         6x8'         M         L-M         M/M         round         inconsp.           **Niscosa         1         6x8'         M         L-M         M/M         round         inconsp.           **PE         E         20x15'         S         L-M         M/M         round         round           **ellpticum         ***         S         L         M/M         round         ream	Vitex roundaífolia	-	7	Ĕ	IA.	1	mult-planch	purpie	Sun	mounding, shrub
Invicensis         E         12x15         S         L-M         L/L         spreading         inconsp.         sun           sandwicensis         E         15x10         M         M         L/L         upright         white         sun-shade           a spp.         I         6x8°         M         L-M         M/M         round         inconsp.         sun           viscosa         E         20x15'         S         L-M         L/L         upright         yelloe         sun           auwahiensis         E         8x8'         S         L         M/M         round         cream         sun	lwicensis  E 12x15 S L-M L/L spreading inconsp.  sandwicensis  E 15x10 M M L/L upright white  a spp.  I 6x8 M L-M M/M round inconsp.  viscosa  BE 20x15 S L-M L/L upright yelloe  auwahiensis  E 8x8 S L M/M round cream	NENELEAU*	· ;¤	10'x4;	: <b>[</b> <u>L</u>	<b>X</b>	L/M	upright	yellow	sun-shade	background
sandwicensis	sandwicensis E 15x10' M M L/L upright white a spp. 1 6x8' M L-M M/M round inconsp.  1 exists auwahiensis E 20x15' S L-M M/M round round cream ellipticum	Rhus sandwicensis		1717.151	·	: % : 1	25 2				
* E         15x10*         M         M         L/L         upright         white         sun-shade           a spp.         1         6x8*         M         L-M         M/M         round         inconsp.         sun           a wysicosa         E         20x15*         S         L-M         L/L         upright         yelloe         sun           auwahiensis         E         8x8*         S         L         M/M         round         cream         sun	a spp.         E         15x10°         M         M         L/L         upright         white           a spp.         1         6x8°         M         L-M         M/M         round         inconsp.           a viscosa         E         20x15°         S         L-M         L/L         upright         yelloe           auwahiensis         E         8x8°         S         L         M/M         round         cream	Diospyros sandwicensis	a a	C14.21	2	F-14	į	spreading	inconsp.	sun	specimen
a spp.         1         6x8'         M         L-M         M/M         round         inconsp.         sun           1 viscosa         E         20x15'         S         L-M         L/L         upright         yelloe         sun           auwahiensis         E         8x8'         S         L         M/M         round         cream         sun	a spp.         1         6x8'         M         L-M         M/M         round         inconsp.           viscosa         E         20x15'         S         L-M         L/L         upright         yelloe           auwahiensis         E         8x8'         S         L         M/M         round         cream           ellipticum         cream	KOPIKO*		15'x10'	, ,	. W	L/L	upright	white	sun-shade	specimen
viscosa  viscosa  spe  E 20x15' S L-M M/M round inconsp. sun auwahiensis  E 8x8' S L M/M round cream sun	viscosa I 6x8' M L-M M/M round 3PE E 20x15' S L-M L/L upright auwahiensis E 8x8' S L M/M round	Psychotria spp.								;	
nsis E 20x15' S L-M L/L upright yelloe sun round cream sun round	nsis E 8'x8' S L-M L/L upright  m	'A'ALL'I Dodonaea viscosa	<b></b>	.8×.9	Σ	Z-Z	W/W	round	inconsp.	uns	screen, hedge,
E 8'x8' S L M/M round cream sun	E 8'x8' S L M/M round	HALA PEPE	ம	•		L-M	L/L	upright	yelloe	uns	specimen
Still		pleomele auwahiensis	ц	8*.8	. v		M/M	hund	,	una .	
	The second is a second in the	Santahim ellinticum	נ	040	2	د	TA1 /TA1	pipo	מנפווז	ins.	specimen

KEY: F=Fast S=Slow L=Low M=Medium H=High E=Endemic I=Indigenous PI=Polynesian-Introduced

PLANT MATERIAL REFERENCE CHART (South Maui Parks Open Space Master Plan)

	status	height x width growth rate 15'x15' M	growth rate	water use	salt/wind tol. L/M	÷	growth habit spreading	flower inconsp.	exposure sun	best use specimen
=	ш	15'x15'	Σ		LAM		spreading	yellow	uns	specimen
Sopnota chrysophyna NAIO		10'x10'	Œ	L-M	H/M		upright	white	uns	background, accent
8:E	ъ	8,x8	Σ	Ţ	M/M	•	spreading	yellow	sun	hedge, accent
	ш	20'x20'	Σ	'n	M/M		spreading	red-yellow	: uns	accent
Erytnina sandwicensis 'OHE*  Schizostachsam olancifolium	딥	30'x20'	Σ	Σ	М/Н		upright	inconsp.	uns	accent
SHRUBS		Annahum memberahan serias seri	West of the second of the seco			An order of the state of the st	cıumping	es de la desta de la desta esta esta esta esta esta esta esta	The second secon	
NAUPAKA-KAHAKAI*	; ;	4'x4'	Σ	M	Н/Н		multi-branch	white	uns	screen/hedge
POHINA HINA*	, <b></b>	3'x3'	×	; <b>X</b>	H/H	:	multi-branch	purple	uns	mounding shrub
VIEX FOUNDING  KO'OKO'OLAU*  Didang hillshandian	ш	1'x2'	,   <u>   </u>	M-H	H/M		multi-branced	yellow	uns	oorder or mass planting
	PI	8'x6'	1	M	L/L		multi-branced	inconsp.	sun-shade	screening
ALAHE'E		12'x8'	; <b>s</b>	Σ	ΓW	;	spreading	white	sun-shade	ledge, screening, accen
:	<u>.</u> ш	4'x10'	×	L-M	25	:	spreading	cream	sun	specimen
	ш	Variable	i L	L-M	H/H		multi-branched	inconsp.	uns	oorder or mass planting
nse	Ы	6'x2'	<b>       </b>	×	M/L	•	upright	white	sun-shade	screen, background
Cordyline fruiticosa UKI UKI*	; <b>—</b>	2'x2'	Σ	L/M	H/M		clumping	inconsp.	sun-shade	accent, mass planting
Diancila sandwicensis HAU HELE WAI*	_	10'x6'	Ĺ.	M/H	M/L	; <del>-</del>	multi-branched	- pink	sun-shade	background, accent
AHU'AWA	-	4'x4'	<u>.</u>	M/H	Н/Н	:	clumping	inconsp.	sun-sahde	accent
S	យ	8,x.8	Σ	. <b>X</b>	LL	-	multi-branched	inconsp.	sahde	screen-accent
	ED	3'x2'		M	M/L		clumping	попе	sun-shade	accent
Sadeferia cyameoldes 'ILIMA*	· !	.05'x3'	P=	L/M	H/M		multi-branched	yellow	uns	oorder or mass planting
: : : :	(m	8'x3'	×	M/H	רע	1	multi-branched	inconsp.	sun-shade	accent, background
Louchardia Janijolia	15	5-16	1	194	TIAL	:	manife have obtain		1	

KEY: F=Fast S=Slow L=Low M=Medium H=High E=Endemic I=Indigenous PI=Polynesian-Introduced

PLANT MATERIAL REFERENCE CHART (South Maui Parks Open Space Master Plan)

common name botanical name Wikstroemia nvaanrei	status	size height x width_growth rate	growth rate	water use	salt/wind tol.	growth habit	flower	exposure	pest use
ANAPANAPA*	-	3'x10'	Ţ.	ם	H/M	spreading	inc.	uns	ickground, mass plantii
AHINAAHINA*	п	2"x3"	<b>\S</b>	Ļ	L/M	round	inc.	uns	
KOLOMONA Senna gandichandii	_	5'x5'	M	Ļ	M/M	spreading	стет	uns	accent porder of mass planting
Schila gaustinaudi KULUT Nototrichium candwingense	· മ്മ	.8×.8	(I.	<u>،</u> ا	M?M	upright	inc.	uns	oorder of mass planting
MA'O	ш	. 2'x8'	į.	.ப	H/M	spreding	yellow	uns	accent
NEHE I inocheata lauarum	· <b>II</b>	3'x3'	ţĿ,	$\Gamma$	M/M	round	yellow	sun	oorder or mass planting
MA'O HAU HELE History brockmeides	យ	8,x8	Σ		ΓW	spreading	yellow	uns	specimen
KOKI'O 'ULA 'ULA*	ற	10'x5'	×	×	LVE	spreading	. red	uns	background, screening
KOKTO KE OKE O*	ŀΩ	15'x10'	M	L-M		upright	white	uns	hedges
KOKTO KE OKE O*	įω	20'x18'	M	Ľ-M	T.	spreading	white	uns	hedges, specimen
AWA*	: <b>Б</b>	. 10'x10'	×	M-H	J.	spreading	inconsp.	shade	mass planting
KO*	F	15'x5'	II-	M-H	M/H	upright	white	uns	background mass planting,
KALO*	Ы	3'x2'	M	м-н	J.T.	clumping	inconsp.	uns	background, accent mass planting,
GROUND COVER									background
PA'U O HI'IAKA* Jacquemontia ovalifolia	-	6"x6'	ŗ.	J	H/H	low spreading	white	uns	coastal planting
`AKULIKULI*	-	6"x24"	<u>u</u>	<b>J</b>	H/H	low spreading	lavender	uns	seashore planting
ALA 'ALA WAI NUI*	: ! <b>—</b>	1,11,	Ĺī.	ı	M/M	spreading	inc.	uns	mass planting mass or border planting
AWAPUHI	Ы	6"x12"	×	M/H	L/L	spreading	red	sun-shade	mass planting
Zingiber zertanioet TLIE'E Plumbago zevlanica	-	1'x4'	ļ.	<b>1</b>	M/M	low spreading	purple	uns	mass planting
THI Dorthlers Inter	<u>்</u> ம	6"x36"	<u>L</u>	ר	HVH	low spreading	yellow	uns	seashore planting
OHELO KAI*	. 1	2'x2'		1	H/H	spreading	white	uns	mass planting
ULEI*	·	4,x6	M M	L-M	H/H	spreading	white	uns	mass planting
Osteometes antnyllidirotta	:			Many de	1				

KEY: F=Fast S=Slow L=Low M=Medium H=High E=Endemic I=Indigenous PI=Polynesian-Introduced

www.mem.mem.mem.mem.mem.mem.mem.mem.mem.		Page		best use mass planting	0	coastal planting	mass planting	mass nlanting	9	mace nlanting	Summed com	mass nlanting	G
Separate property of the separate property of				ıre		•		•			}		
				exposure		ยนร		suns		sun-shade		sun-shade	
and the second						:							i
ф/сучинети поличения				flower white		pink	•	yellow	•	none		none	
and the same of th								_					i
Novosano-constitution of the constitution of t				growth habit low spreading		low spreading	•	multi-branched		low spreading		low spreading	
Model Col-Promissory voc. can	er Flan)					_							
Para tamore o caregory	Space Mast			salt/wind tol. H/H		H/H		H/M		M/M		Z	
Manager of the Control of the Contro	Parks Open Space Master Plan)			water use H	,	'n		Σ		L-H		M-H	
Annual Contraction of the Contra	outh Maui ]		•	growth rate F		Ð		ഥ		Σ		Σ	
more construction of the c	E CHART (S		size	height x width growth rate 6"x3" F		1'x20'	,	2'x5		2'x1'		2'x2'	
Management and Manage	REFERENC			status		<b>-</b>		ш		<b>-</b>		-	
Account of the Contract of the	PLANT MATERIAL REFERENCE CHART (South Maui		common name	botanical name	Bacopa monnieria	POHUEHUE*	Ipomoea pes-caprac	NEHE*	Lipochaeta succulenta	PALA'A	Sphenomeris chinensis	PALAPALAI*	Microlopia strigosa

# PLANT MATERIAL REFERENCE CHART (South Maui Parks Open Space Master Plan)

TIER 2: TOLERATED PLANT MATERIAL

best use	American control of the second	planters, accent	formal entry and streets	THE REAL PROPERTY AND ADDRESS OF THE PROPERTY	accent planting, parking	med. canopy tree, street,	рампив	planters, accent	hedge massing	accent planting at wall &	mass as screening	hedge or accent planting	planters, accent	screening hedge, parking	parking lot screen/ hedge	accent, specimen	massings/ accent planting	screen/ parking hedge	planters/ accent	screening/ accent
exposure	The same with th	uns	uns	A SAME AND THE SAM	uns	uns		uns	uns	sun-shade	part. shade	shade-sun	part. shade	part. shade	shade-sun	part. shade	part. shade	uns	part. shade	part. shade
flower	MANAGE TO THE PROPERTY OF THE	inconsp.	cream	en e	varies	red		orange	varies	white	white	varies	orange	white	white	white	red	varigated	varies	white
growth habit		upright	upright	tion in a major major when the first that the first the	spreading	spreading		clumping	spreading	upright	upright	multi-branch	multi-branch	multi-branch	rigid/multi-stem	round	multi-stem	multi-stem	upright	multi-branch
salt/wind tol.		H/M	M/M	A CONTRACTOR OF THE CONTRACTOR	M/M	M/M		M/M	M/M	M/M	ΓW	M/M	L/M	M/H	H	M/H	L/M	L/M	L/M	L/M
water use		M	M	PV v compet Apparent V pot transfer of physical Confession of management of the confession of transfer of the confession	M	Z Z		×	M	, ; ; <b>1</b>			M	· · · · · · · · · · · · · · · · · · ·	M	<b>X</b>	H	<b>W</b>	M	Σ
growth rate		X	×		M	, <b>X</b>		×	×	<u> </u>	W	<b>H</b>	S	M		S	M	       	; ; ; ;	×
size height x width growth rate		20,			15'-20'	30'x40'		4'x4'	varies (mounding)	3'x12'	8'x5'	5'x3'	4'x3'	10'x'8	3'x'3'		8'x5'	6'x3'	8'x5'	4'x3'
common name botanical name	PALMS TREES	MANILA PALM	Vettenia merriiii ROYAL PALM Rovstonea regia	SHADE TREES	PLUMERIA	Plumeria (species) ROYAL POINCIANA Delonix regia	SHRUBS	BIRD OF PARADISE Strelitzia reginae	BOUGAINVILLEA Bougainvillea (species)	DRACENA Dracena marginata	GARDENIA Gardonia iacminoides	HIBISCUS	Figure (species) IXORA	MOCK ORANGE	NATAL PLUM	QUEEN EMMA LILY	RED GINGER	SNOW BUSH	TI	Cordyline terminalis TIARE Gardenia taitensis

KEY: F=Fast S=Slow L=Low M=Medium H=High E=Endemic I=Indigenous PI=Polynesian-Introduced

PLANT MATERIAL REFERENCE CHART (South Maui Parks Open Space Master Plan)

# TIER 2: TOLERATED PLANT MATERIAL

common name	size							
botanical name GROUND COVER	height x width growth rate	growth rate	water use	salt/wind tol.	growth habit	flower	exposure	best use
ASPARAGUS FERN Asparagus densiflorus	24"x24"	Œ	ר	M/M	spreading	red fruit	uns	foundation nlanting/nlanters
BLUE DAZE Evolvulus glomerata	12"x24"	: [I]	×	M//M	clumping	blue	part. shade	planter/foundation
IMPATIENS Impatiens sultanii	12"X24"	ᄄ	×	LIL	clumping	varies	shade-sun	color accent/ planters
LAUA'E FERN Microsorium scolopendria	12"x24"	į <u>r</u> ,	×	MM	upright	none	part. shade	parking areas/ foundation
VINES								
ALLAMANDA Allamanda (species)	med.	ㄸ	X	M/M	climbing	Varies	sun-shade	vine or ground cover
CREEPING FIG Ficus pumila	Татде	: :	M	L/M	climbing	inconsp.	sun-shade	cover walls/ very aggressive
CUP OF GOLD Solandra guttata	large	<u> </u>	Σ	L/M	climbing	yellow	uns	vine or ground cover
FLAME VINE Pyrotegia ignea	med.	Σ	X	ΓW	climbing	orange	uns	cover walls/ fences
KUHIO Ipomoea horsfalliae	large	Σ	¥	н/н	climbing	purple-red	uns	cover walls/fences

### APPENDIX C: PARK ASSESSMENT FUND

### PARK ASSESSMENT FUND

In lieu of a park land dedication from the subdivider to the County, the subdivider may pay a sum of money to the County. It can take the form of a lump-sum payment into a park assessment fund. Alternately, the subdivider can be required to pay for improvements to a specific park.

- "1. The director of parks and recreation shall require each subdivider, as a condition of approval of a subdivision, to:
- a. Provide land in perpetuity or shall dedicate land for park and playground purposes; or
- b. Pay the County a sum of money; or
- c. Provide improvement to a park in the community plan region; or
- d. Provide an equivalent combination thereof, pursuant to subsection C."

The 'sum of money' shall be equal to the number of square feet required by section 18.16.320.B.2.c multiplied by the square footage assessed valuation of the land being subdivided based on the certified real property tax assessment in effect at the time of final subdivision approval.

The value of park improvements shall be at least equal to the sum of money required to be paid pursuant to section 18.16.320. The estimate for the cost of the improvements provided is based upon cost estimates certified by an engineer. For subdivisions which qualify as affordable housing projects, this park assessment fee is deferred for either one year from the date of final subdivision approval or until fifty percent of the dwelling units of the affordable housing project are sold or rented, whichever occurs first.

The County shall use the money received pursuant to section 18.16.320 for providing parks and playgrounds for the use of purchasers or occupants of lots or units in the subdivision. The money received in connection with a subdivision shall accrue to a park assessment fund, and shall be appropriated in the County budget for parks and playgrounds in the community plan region where the subdivision is located.

The estimated amount available for appropriation in each community plan region is set forth in the operating budget and capital program proposed by the mayor. The total available from the Park Assessment Fund for the County of Maui was \$980,000 for the fiscal year 2002/2003.

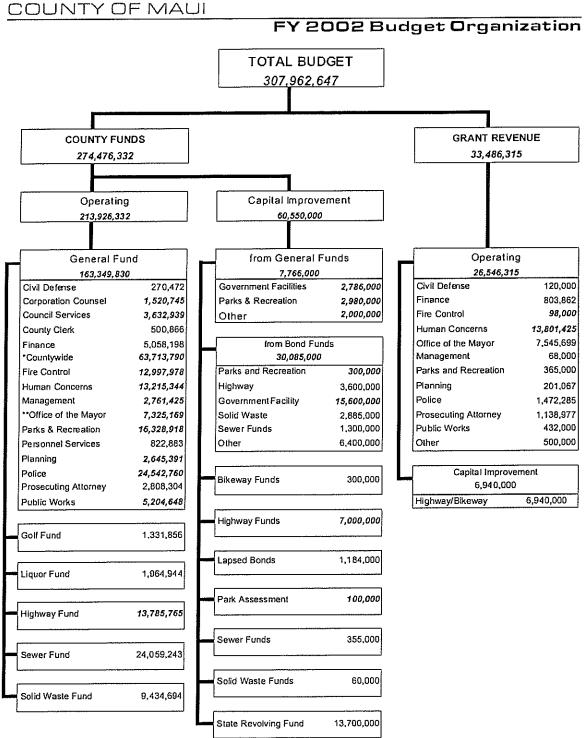
Kihei-Makena Community Plan Region had approximately \$475,000 available at the beginning of the *fiscal* year 2002/2003. This a cumulative amount. Approximately \$817,000 has been assessed to the Fund over the past 6 years<sup>31</sup> with approximately \$1.1 M being appropriated from the Fund for that same time period.

Park Assessment Fund money appears as revenue in the County budget, under 'Special Assessment'. This item also includes the Wastewater Fund.

The following 2002 budget chart shows the operating funds and grant funds budgeted for 2002. Parks and Recreation activities account for 7.18% of the 2002 County budget or \$19,708,000.

Table A1 shows financial details of the Park Assessment Fund.

<sup>31</sup> Fiscal 96/97-\$22,000, Fiscal 97/98-\$36,500, Fiscal 98/99-\$83,500, Fiscal 99/00-\$325,000, Fiscal 00/01-\$2,250, Fiscal 01/02-\$348,000.



<sup>\*</sup> Countywide Costs include insurance, debt service, interdepartmental transfers & employee benefits.

<sup>\*\*</sup>The budget for the Office of the Mayor includes \$5,875,000 in economic development grants.

Table A1 - Financial Details of the Park Assessment Fund 1996-Present.

DESCRIPTION	KIHEI - MAKENA	COUNTY of MAUI
BALANCE ON JUNE 30, 1996	679,501.25	1,444,034.07
FISCAL 1996-97 REVENUE	22,072.05	257,147.15
FISCAL 1996-97 APPROPRIATED	-385,379.00	-954,587.00
FISCAL 1996-97 LAPSED C I P	0.00	0.00
BALANCE ON JUNE 30, 1997	316,194.30	746,594.22
FISCAL 1997-98 REVENUE	36,492.75	439,754.95
FISCAL 1997-98 APPROPRIATED	-300,000.00	-565,000.00
FISCAL 1997-98 LAPSED C I P	0.00	4,000.00
BALANCE ON JUNE 30, 1998	52,687.05	625,349.17
FISCAL 1998-99 REVENUE	83,453.58	126,165.03
FISCAL 1998-99 APPROPRIATED	-52,687.00	-272,687.00
FISCAL 1998-99 LAPSED C I P	0.00	0.00
BALANCE ON JUNE 30, 1999	83,453.63	478,827.20
FISCAL 1999-00 REVENUE	325,005.00	506,929.90
FISCAL 1999-00 APPROPRIATED	-30,000.00	-292,500.00
FISCAL 1999-00 LAPSED C I P	0.00	0.00
BALANCE ON JUNE 30, 2000	378,458.63	693,257.10
FISCAL 2000-01 REVENUE	2,250.00	286,692.60
FISCAL 2000-01 APPROPRIATED	-377,000.00	-525,000.00
FISCAL 2000-01 LAPSED C I P	0.00	0.00
BALANCE ON JUNE 30, 2001	3,708.63	454,949.70
FISCAL 2001-02 REVENUE	348,165.00	502,517.83
FISCAL 2001-02 APPROPRIATED	0.00	-100,000.00
FISCAL 2001-02 LAPSED C   P	123,705.49	123,840.59
BALANCE ON JUNE 30, 2002	475,579.12	981,308.12
F-Y-T-D REVENUE (DEC 31, 2002)	43,680.00	470,363.30
F-Y-T-D APPRO (DEC 31, 2002)	-400,000.00	-690,000.00
F-Y-T-D LAPSED (DEC 31, 2002)	0.00	0.00
BALANCE ON DECEMBER 31, 2002	119,259.12	761,671.42