BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of )
KAHALA CAPITAL CORPORATION )

To Amend the Conservation Land Use )
District Boundary into the Urban )
Land Use District for Approximately)
313.66 Acres at O'oma, North Kona, )
Hawaii, State of Hawaii, Tax Map )
Key Number: 7-3-09: parcel 4 )

DOCKET NO. A86-602
KAHALA CAPITAL CORPORATION

FINDINGS OF FACT, CONCLUSIONS OF LAW
AND DECISION AND ORDER
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KAHALA CAPITAL CORPORATION

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FINDINGS OF FACT, CONCLUSIONS OF LAW
AND DECISION AND ORDER

Kahala Capital Corporation, a Hawaii Corporation (hereinafter "Petitioner"), filed this Petition on May 19, 1986, and amendments to the Petition on November 25, 1986, and December 4, 1986, pursuant to Chapter 205, Hawaii Revised Statutes, and the State Land Use Commission Rules of Practice and Procedure and District Regulations, State of Hawaii, to amend the land use district boundary for approximately 313.66 acres of land, Hawaii Tax Map Key No.: 7-3-09: parcel 4, situate at O'oma II, North Kona, Island of Hawaii, State of Hawaii (hereinafter "Property"), from the Conservation District to the Urban District. The Land Use Commission (hereinafter "Commission"), having heard and examined the testimony, evidence and argument of counsel presented during the hearings, the proposed findings of fact, conclusions of law, and decision
and orders, hereby makes the following findings of fact, conclusions of law and decision and order:

FINDINGS OF FACT

Procedural Matters


3. On December 16, 1986, the Commission allowed Harold Adams, Representative Virginia Isbell, Arthur McCormack and Moanikeala Akana to testify as public witnesses. The Commission also accepted the written testimony of Larry Isemoto, Clinton Taylor and Elizabeth Ann Stone.


5. On June 23, 1987, the Commission allowed Bill Cook, George Lockwood, Bob Kapaona, Clinton Taylor and Boyd Hansen to testify as public witnesses. The Commission also accepted additional testimony from Representative Virginia Isbell.
6. At its action meeting held on June 23, 1987, Commissioner Lawrence Chun moved for approval of the Petition subject to twelve conditions.


8. The motion to approve the Petition failed to receive the necessary six affirmative votes as required by Section 205-4(h) Hawaii Revised Statutes, for a boundary amendment, and therefore, the Petition is denied.

DESCRIPTION OF THE PROPERTY

9. The Property lies within the O'oma II ahupua'a on the leeward coast of the island of Hawaii immediately to the south of the Hawaii High Technology Development Corporation's (HTDC) proposed 547-acre Hawaii Ocean Science and Technology (HOST) Park and the State's Keahole Airport and Natural Energy Laboratory of Hawaii (NELH).

10. The Property is currently unimproved except for several poorly maintained jeep roads and historic and archaeological remains. The coastal area is used for recreational purposes, such as fishing and diving, and for access to a popular beach area south of the Property known as "Pine Trees" Beach.

11. The elevation of the Property area ranges from sea level at the coastline to approximately 85 feet above mean sea
level at its southern-mauka boundary. Average slopes on the Property range from 0 to 5 percent with a predominant land type consisting of Pahoehoe lava with smaller areas of a'a lava and beaches.

12. The U.S. Soil Conservation Service identified three land types on the Property. The predominant type is Pahoehoe lava which has a billowy, glassy surface and the second type consists of a'a lava flows which are scattered throughout the Property. A'a lava is characterized by a clinkery, rough surface. The third land type includes the beach areas along the coast. The beaches are composed of sand, cobbles, coral and sea shells.

13. The climate of North Kona is semi-tropical and considered to be dry and arid with light rainfall. The average annual temperature is 75 degrees F with an average high of 83 degrees F and an average low of 67 degrees F. Average annual rainfall at Kailua-Kona is about 25 inches.

A high rainfall belt lies between the 1,200 to 3,000 foot elevations on the leeward slopes of Hualalai and Mauna Loa Volcanoes.

14. The prevailing wind pattern consists of on-shore breezes in the morning and early afternoon, returning to offshore breezes in the late afternoon and evening.

15. Petitioner anticipates very little potential impacts from the hazards of volcanic activity. Petitioner states that the Hualalai Volcano last erupted in 1801.
16. According to the U.S. Army Corp of Engineers, the Property is affected by tsunami inundation with surface elevations ranging from seven to nine feet mean sea level along the coast.

17. The State of Hawaii has acquired an 83-acre portion of the Property that was proposed for development as a high technology aquaculture park in exchange for an 83 acre parcel of State Urban land bordering the Queen Kaahumanu Highway. By letter dated June 12, 1987, the Department of Land and Natural Resources consented to the Petition.

18. The remainder of the Property is owned in trust by the American Trust Co. of Hawaii, Inc. under Land Trust No. 90-01646.

19. American Trust Co. of Hawaii, Inc., as Trustee and as directed by its beneficiary, authorized the Petitioner to seek State Land Use District reclassification from the Conservation to the Urban Land Use District.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

20. Petitioner proposes to develop a mixed use project (hereinafter the "Project") containing hotel, multi-family residential, aquaculture, office, commercial and visitor recreational uses. The Project's land uses and approximate acreages as reflected in the original petition are as follows:
21. Petitioner submitted a revised land use plan, with the proposed land exchange as follows:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Approximate Gross Acreage</th>
<th>Density</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resort Hotel</td>
<td>25 ac.</td>
<td>24/ac.</td>
<td>600</td>
</tr>
<tr>
<td>Multi-family Residential</td>
<td>20 ac.</td>
<td>15/ac.</td>
<td>300</td>
</tr>
<tr>
<td>Marine Park/Visitor Ctr.</td>
<td>20 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Park</td>
<td>20 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-tech Area</td>
<td>50 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf Course/Clubhouse</td>
<td>130 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beach Parking/Open/Roads/STP</td>
<td>49 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>314 ac.</td>
<td></td>
<td>900</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Approximate Gross Acreage</th>
<th>Density</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>25 ac.</td>
<td>24/ac.</td>
<td>600</td>
</tr>
<tr>
<td>Multi-family Residential</td>
<td>20 ac.</td>
<td>15/ac.</td>
<td>300</td>
</tr>
<tr>
<td>Office Park/Multi-family</td>
<td>15 ac.</td>
<td>0-15/ac.</td>
<td>0-225</td>
</tr>
<tr>
<td>Office Park</td>
<td>20 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>20 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Park/Visitor Ctr.</td>
<td>20 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clubhouse</td>
<td>3 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf Course</td>
<td>130 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreation Center</td>
<td>1 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beach Parking/Open/Roads/STP</td>
<td>60 ac.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>314 ac.</td>
<td></td>
<td>900-1125</td>
</tr>
</tbody>
</table>
22. Under the revised land use plan, Petitioner proposes that the 83 acres acquired from the State by the land exchange, will be developed into either an office park or additional multi-family units, for portions of the golf course and for commercial uses. These 83 acres are presently in the Urban District.

Resort Hotel

23. Petitioner's proposed hotel site will be located approximately 400 feet inland from the shoreline near Puhili Point. The hotel will contain 600 rooms and is intended to serve a) visiting business people who prefer the convenience of proximity to the Keahole Airport coupled with resort amenities, b) HOST Park visitors and staff can use the guest rooms for short-term stays, and also the restaurants, conference facilities, and communications services to support their operations and c) visitors to the Kona region who are seeking facilities, services, and amenities of a fully planned resort community.

24. Petitioner believes that the proposed hotel would not compete with other luxury hotels on the Kohala coast. Rather, it would be creating and catering to a separate market primarily consisting of business people, airport personnel and people coming to work or visiting the HOST Park and the NELH facilities.
Multi-family Residential

25. Petitioner proposes to develop approximately 300 multi-family residential units on the Property. An additional 225 multi-family units could be developed under petitioner's revised land use plan. Petitioner's FEIS states that further market and feasibility studies will determine if these units will be oriented to the visitor industry or to the local rental market. These units are proposed in part as providing long-term transient housing for visiting HOST Park or NELH researchers and their families.

26. Petitioner indicated through its market consultant, that the multi-family residential units are an essential and integral aspect of the Project and prohibition of such units would be devastating to the economic feasibility of the Project.

Marine Park and Visitor Center

27. Petitioner proposes a marine park and visitor center to be the focal point for visitors and an activity node within the development. The marine park and visitor center would contain exhibitions, and displays. Their employees would be capable of answering questions about the HOST Park operations, the NELH operations, and other marine uses and activities that exist within the Kona area. They will be designed to take advantage of the natural tidal pools and will explain and illustrate the NELH and the HOST Park operations.
The visitor center will convey the interpretive value of the historic sites to be preserved on the Property.

The marine park may also have potential uses similar to Sea Life Park or other major aquarium facilities as well as a water playground type of facility such as the one located in Castle Park on Oahu.

Office Park

28. Petitioner proposes to develop an office park to support the anticipated expansion in professional white-collar services related to industrial and resort development in the Kona area. Petitioner states there is no office park development in proximity to Keahole Airport.

29. Petitioner proposes the office park which will include low rise office buildings presumably no more than two to three stories high. Petitioner believes the proposed office park could provide the necessary infrastructure to the HOST Park in order to assist in becoming more competitive in a worldwide market.

High Technology Aquaculture and Other High Technology Uses

30. Petitioner's original plan proposed a 50-acre portion of the Property on the northern boundary immediately adjacent to the HOST Park for high technology and aquaculture uses to support and complement the anticipated operations of HOST Park and NELH. This area is part of the 83 acres exchanged with the State of Hawaii.
Golf Course

31. Petitioner proposes an 18-hole golf course as an open space buffer between different land uses. Petitioner states that the golf courses would provide a recreational amenity for the residents of North Kona and is an integral part of the planned resort improvements.

Petitioner also proposes to develop a golf clubhouse on an elevated area near the center of the Property.

Beach and Public Shoreline Access

32. Petitioner recognizes that beachcombers, fishermen and picnickers frequent the shoreline fronting the Property.

33. Petitioner's original plans for proposed public access points were one at Puhili Point near the proposed hotel site at the southern boundary and the other adjacent to the HOST Park boundary near Wawaloli Beach to the north. Petitioner indicates that the beach and setback areas will remain open to public pedestrian traffic via pathways along the Property's oceanfront, but vehicular movements will be restricted beyond the two beach parking areas.

Petitioner proposed to provide two beach parking at the northern and southern portions of the Property. However, neither of the beach parking areas would be developed as an improved public beach park.

34. It is unclear as to how the land exchange will affect the access and beach parking area for the Project. Petitioner does not intend to eliminate the southern beach parking.
Internal Circulation

35. The principal entrance to the Property will be located at the southern-mauka corner where an existing easement connects the Property with Queen Kaahumanu Highway. The main internal road will run diagonally through the Property. An option to linkup with the HOST Park circulation system is provided at the northern-makai corner. The main road will serve the office park, multi-family residential area, marine park/visitor center, and high-technology industrial areas. A secondary internal road will service the hotel and southern beach parking area.

PROJECT PHASING AND PRELIMINARY COSTS

36. During the first year of development, Petitioner intends to develop an access road to the hotel. Construction of the golf course, clubhouse, hotel, sewage treatment plant, electrical substation, and off-site water system would also begin in the first year.

37. During the second year, Petitioner intends to complete those improvements started in the first year as well as constructing beach access and parking lots.

38. During the third year, Petitioner intends to develop the marine park, visitor center, and related infrastructure improvements.

39. During the fourth year, Petitioner proposes to construct the first of the multi-family residential units and the first phase of the office park area.
40. During the fifth year, assuming market conditions are feasible, Petitioner contemplates completing the multi-family units and office park.

41. Petitioner anticipates that the Project will be substantially completed within five years from the date of county rezoning.

42. With the exception of the 83 acres exchanged with the State, which would no longer be part of the Project, Petitioner believes that the land exchange will not alter the construction phasing for the Project.

43. Petitioner's FEIS (p. II-10) listed the estimated costs of infrastructure as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Development</td>
<td>$12,000,000</td>
</tr>
<tr>
<td>Roads</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Drainage</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Water Supply</td>
<td>11,500,000</td>
</tr>
<tr>
<td>Wastewater</td>
<td>6,500,000</td>
</tr>
<tr>
<td>Power and Telecommunications</td>
<td>1,500,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$37,500,000</strong></td>
</tr>
</tbody>
</table>

It is unclear as to whether these infrastructural costs would remain the same under Petitioner's revised land use plan.

**PETITIONER'S FINANCIAL CAPABILITY TO UNDERTAKE THE PROPOSED DEVELOPMENT**

44. Petitioner submitted a statement of financial condition which indicates that the Petitioner had a net worth of $421,985 as of December 31, 1984.
45. Petitioner, which is the Managing General Partner of Kona Oceanfront Properties, a Hawaii limited partnership, filed a statement of assets and liabilities ending December 31, 1985 for Kona Oceanfront Properties showing assets of $10,734,267.

46. Petitioner also submitted a personal financial statement for Norbert Schlei, who is the Petitioner's founder, sole shareholder, and Chairman of its Board of Directors, showing a net worth of $7,052,940.

47. Petitioner plans to obtain funding for infrastructural improvements by a bond offering. A proposal for a bond offering to present to the County of Hawaii is being worked out.

48. Petitioner intends to remain as owner or developer of the Project through buildout.

**NEED FOR THE PROPOSED DEVELOPMENT**

**Proposed Resort Hotel and Multi-Family Condominium Need**

49. Petitioner's market consultant, James Hallstrom, of the Hallstrom Appraisal Group (Hallstrom Appraisal), indicated that the number of transient visitor units on the Island of Hawaii totaled 6,944 as of February 1985 and are broken down as follows:

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>Number of Units</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kailua-Kona to Keauhou</td>
<td>4,366</td>
<td>62.44</td>
</tr>
<tr>
<td>Hilo</td>
<td>1,169</td>
<td>16.83</td>
</tr>
<tr>
<td>Other</td>
<td>1,439</td>
<td>20.72</td>
</tr>
<tr>
<td>TOTAL</td>
<td>6,944</td>
<td>99.99</td>
</tr>
</tbody>
</table>
The "Other" category represents transient units located elsewhere. The majority of these "Other" units (1,250) are located in the Primary Economic Market Sector (PEMS) which is defined as the coastal corridor between Kailua-Kona and Kawaihae. A significant addition to the PEMS will be made with the completion on the 1,260 unit Hyatt Regency Hotel at Waikoloa.

50. The Department of Planning and Economic Development's (DPED) population projection, Series MF, indicates a need for 16,000 total hotel and condominium units by 2005 for the Island of Hawaii.

51. Based on the Draft Kona Regional Plan projection which provides that 85 percent of the total resort units by the year 2000 would be located in the Kona/Kohala region, it can be estimated that approximately 13,600 visitor accommodation units would be required in the Kona/Kohala region.

52. Hallstrom Appraisal indicated that there are 5,586 visitor accommodation units located between Keauhou and Kawaihae. With the addition of the 1,260-unit Hyatt Regency Hotel at Waikoloa presently under construction, the total will be approximately 6,846 units.

In addition, the Commission recently approved petitions for resort development as follows:
<table>
<thead>
<tr>
<th>Location</th>
<th>Commission Docket No.</th>
<th>Number of Hotel/Condominium Units Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaupulehu</td>
<td>A85-597/Kaupulehu Developments*</td>
<td>1,800</td>
</tr>
<tr>
<td>Kohanaiki</td>
<td>A86-599/Kona Beach Development Venture, L.P.</td>
<td>1,500</td>
</tr>
<tr>
<td>Kukio</td>
<td>A86-603/Huehue Ranch</td>
<td>3,350</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>6,650</strong></td>
</tr>
</tbody>
</table>

*Includes 50 unit expansion of Kona Village

It is noted that the market study prepared for Docket No. A86-599/Kona Beach Development Venture, L.P., indicated that both existing and proposed hotel and resort condominium units for the Keauhou, Waikoloa, Mauna Lani and Mauna Kea Resorts will total approximately 24,483 units.

53. The total of the above 24,483 units and the 6,650 units recently approved by the Commission, is approximately 31,133 units of visitor accommodations, which surpasses the projected Kona/Kohala need of 13,600 units by 17,533 units.

Marine Park and Visitor Center Need

54. Petitioner indicated that a market exists for a destination exhibit development and that a marine-oriented theme would be appropriate for the Project. This might include: entertainment, marine life shows and displays; cultural, historical Hawaii relations with sea resources; and educational activities done in conjunction with the HOST Park and the NELH.

55. Although Petitioner indicated an interest on the part of Sea Life Park to participate in the Project, no
commitment has been made by Sea Life Park to operate on the Property.

Office Park

56. Hallstrom Appraisal anticipates that the proposed office park could be successful due to its location, mixed-use and resort quality amenities, lack of competing proposed developments in West Hawaii, and because a market exists for the proposed office park.

57. Petitioner did not substantiate the projected need for an office park with statistical data.

High Technology/Aquaculture Need

58. Hallstrom Appraisal states that high technology and light industrial uses are probable based upon the level of demand projected for the HOST Park adjacent to the Property. The Property would be considered a prime expansion area due to its proximity to the HOST Park.

59. Market demand for the high tech sites (as an expansion to the HOST Park) could be anticipated within five to ten years from the opening of the HOST Park opening. However, demand for the high technology and light industrial acreage will only result in the event the HOST Park achieved capacity and/or major production and marketing gains are made.

STATE AND COUNTY PLANS AND PROGRAMS

60. The Property is situated within the State Land Use Conservation District as reflected on Land Use District Boundary Map H-2 (Keahole Point, Hawaii).
61. In April 1986, the Petitioner submitted an application to the County of Hawaii Planning Department to amend the General Plan Land Use Pattern Allocation Guide Map (LUPAG) land use designations from "Open" and "Conservation" to "Intermediate Resort", "Industrial", "Medium Density Urban", and "Open". On June 15, 1987, the County Council of Hawaii approved the General Plan amendment.

62. The Kona Regional Plan adopted by the Hawaii County Planning Commission in April 1984 designates the Property as "Open".

63. The Property is designated "Open" by existing County zoning. A County zoning change is required to allow the uses as proposed for the Project.

64. The Property is within the County of Hawaii Special Management Area.

IMPACT UPON RESOURCES OF THE AREA

Ocean Water Quality

65. The nearshore waters off the Property are pristine, with an absence of stream discharges, industrial wastes, or domestic wastes affecting the area. These waters are classified as "AA" by the State Department of Health. The objective of this class is to preserve the waters in their natural pristine state as nearly as possible.

66. The NELH and the HOST Park were located immediately to the north of the proposed Property for the purpose of utilizing the unique geographic and oceanographic
conditions which permit access to deep, cold, nutrient-rich, pure ocean water and the pristine, class "AA" conditions of the nearshore waters. The access to and maintenance of the purity and protection of ocean water quality around the HOST Park and the NELH is essential to the success of both operations. Water quality at the NELH is monitored throughout the year.

67. The 547 acre HOST Park, officially dedicated in November 1986, will serve to promote the commercialization of ocean related high technology and will be an integral part of the research and development conducted at the NELH.

68. In its letter contained in the FEIS dated September 8, 1986, the NELH expressed concern regarding the transport of nutrients from the proposed golf course to the coastal waters by leaching of sewage effluent, fertilizers and herbicides. The NELH indicated that two warm water intakes (one located 303 feet offshore and 20 feet below the surface and the other 30 feet offshore and 10 feet below the surface) are as important as the deep, cold water intakes to the success of the NELH. Future plans at the NELH and the HOST Park provide for the installation of five new pipelines during 1986 and 1987 with an additional 15 pipelines planned in the future.

69. The NELH is concerned about the cumulative impacts of many resort developments along the coastline and is currently developing treatment and monitoring measures of its own to assure that they do not pollute their own receiving
waters. The presence of ocean eddies is also a concern, because they may tend to hold nutrient-rich water and/or potential pollutants for longer periods of time.

70. The NELH states that a monitoring system should not only identify changes in the marine structure or physio-chemical parameters, but should assist in pinpointing the cause for any change since adverse water quality cannot be remedied without identifying the cause of the problem.

71. Petitioner indicated that discussions with the NELH and the HOST Park officials have identified opportunities for concerned parties to cooperate in an ongoing program that would essentially expand the monitoring procedures currently employed by the NELH. Preliminary agreement has been reached to pursue such a monitoring program so long as all affected parties share in the program costs and those costs are not unreasonable. As presently envisioned and discussed by the NELH, the HOST Park and representatives of the Petitioner, the monitoring program would include a minimum of three test locations:

- The existing NELH station;
- A location in front of Ooma II; and
- A control station which is reasonably separated from the other two.

72. The NELH stated that the proposed high precision, surface water nutrient monitoring program is not an end in itself. The NELH is interested in protecting the potential
pollution of the warm and cold seawater used for ocean thermal energy conversion and mariculture. Pollution caused by seepage from the golf course and other urban development could result in adverse impacts to the research and commercial demonstration operations currently being conducted at the NELH. Studies have shown that leaching of nutrients from a golf course into the nearshore waters does occur.

73. Petitioner's FEIS indicated that in a worst case scenario, irrigation of an 18-hole golf course could increase the nutrient content of off-shore waters for nitrogen and phosphorus, to amounts that are just at the level of detectability. The Property's proximity to the NELH and the HOST Park may mean even the slightest increase could have an impact.

74. No formal commitments have been made regarding the implementation of a joint water quality monitoring program. To date, only preliminary discussions between Petitioner, the NELH and the HOST Park have occurred.

75. Petitioner did not present plans to mitigate any offshore water pollution which may be caused by the Project. No specific corrective measures such as treatment procedures, and how the treatment would be funded were discussed.

76. Petitioner did not provide sufficient information regarding the potential cumulative impacts of the Project and other proposed existing developments on water quality as it relates to the NELH and the HOST Park concerns.
Marine Ecosystems

77. According to Petitioner's marine biologist, the physical environment off-shore of the Property is typical of shorelines in West Hawaii: It has a lava shoreline, small pockets of sand and boulder beaches, a lava shelf that extends out several hundred feet from the shoreline, and ending in a steep drop-off into great depths and a sandy bottom.

78. No endangered or threatened marine species were observed. However, the green sea turtle and the humpback whale are known to visit the Kona coast.

NOISE

Airport Operations

79. Keahole Airport is a major State investment of critical importance to the future of West Hawaii. It was built at Keahole Point because of the relative isolation of the area. As is the classic case for most airports, urban development around the facility may limit its design effectiveness.

80. As the West Hawaii region grows, there will be additional demands on the airport including an increase in twenty-four hour passenger and air cargo operations which obviously will include night flights. Air cargo operations will be especially important as the Hawaii Ocean Science and Technology Park begins and expands its commercial operations which will include perishable seafood products. The massive
expansion of tourism and tourist-related facilities projected for the region will also require the airport to operate at maximum efficiency for both passengers and air cargo at all hours of the day.

81. Increased airport operations may ultimately lead to complaints and lawsuits concerning aircraft overflights, safety and noise. This may result in curtailing airport operations which will inhibit service to West Hawaii.

82. A noise contour map was submitted as DPED Exhibit 2 depicting projected average day-night noise level (Ldn) contours for the year 1990. It was prepared by the State Department of Transportation (DOT) and reflect the 55, 60, 65 Ldn and higher contour lines as they affect both the Kohanaiki Ahupua'a and the Property. Based on the noise contour map, most of the Property is impacted by the 55 Ldn and higher contour lines.

83. DOT's consultants have indicated that single wall construction methods typical of residential development in Hawaii, would attenuate noise levels by only 10 Ldn. Additional sound attenuation measures exceeding ten decibels would not be effective since Hawaii's lifestyle encourages outdoor living, even in resort areas. The majority of complaints DOT has received are from people sitting outside who are disturbed in the evenings when they are enjoying the sunset, having a cocktail on the lanai and doing other things which are typical of Hawaii's outdoor lifestyle.
84. The DOT recommends a noise or avigation easement, which grants the right of flight over the Property, including the ability to make noise, discharge smoke fumes, oil particles, anything associated with the flight of the aircraft over the Property, in a form prescribed by DOT be granted by the Property owner to DOT on those portions of the Property subject to noise levels exceeding 55 Ldn.

The basis for this recommendation is grounded upon the facts that normal single wall construction of habitation units will attenuate noise about ten Ldn and that federal agencies such as the Department of Housing and Urban Development have set interior noise levels at 45 Ldn.

85. The DOT also recommends that there be no residential or resort condominium development on any portion of the Property subject to noise levels greater than 60 Ldn. They recommend that this condition also apply to any other uses which are not compatible with the operations of Keahole Airport as prescribed by the State DOT and the United States Federal Aviation Administration (FAA) guidelines.

86. According to the FAA guidelines, general land use categories such as "Residential", "Public Use", "Commercial Use", "Manufacturing and Production", and "Recreational" uses are compatible without restriction for areas below the 65 Ldn. However, the FAA states that the responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities.
87. The DOT indicated that since Keahole Airport is receiving federal aid, the DOT is not allowed to prohibit the use of the airport by other federal agencies. Military aircraft which do not have noise restrictions, would therefore have access to the airport providing their use does not impose additional maintenance.

88. The Keahole Airport Master Plan and Noise Compatibility Study Technical Advisory Committee indicated that avigation easements are not an effective means to prevent noise complaints because an avigation easement requires the specifying of a particular noise measure. If actual noise levels exceed those stated in the easement, then the easement is voided.

89. According to the DOT's Noise Compatibility Program Keahole Airport, Hawaii, prepared in May 1987, every effort should be made to keep the current zoning (open space) which reinforces the compatible land uses adjacent to the airport.

90. The State Department of the Attorney General (AG), in response to a letter from Representative Virginia Isbell dated February 23, 1987, indicated that although avigation easements and covenants will provide some protection to the State from future lawsuits, there is no assurance of the outcome of these lawsuits.

91. Representative Isbell stated that Dr. Donald Maddison, an airport noise consultant, represented to her that
reliance on avigation easements is unwise because noise
contours do not take into consideration single-event nuisances,
increases in volume, changes in noise level which are in excess
of the projection, and are often subject to change.

92. Petitioner has submitted a proposed noise easement.

Archaeological/Historic Resources

93. Petitioner's archaeological consultant identified
279 archaeological features including platform structures,
walled habitation shelters, cave and overhang shelters, cairns,
rubble piles and bed rock excavation areas. Most of the
identified archaeological sites are located within 600 to 800
feet of the shoreline. Since development will be concentrated
in this area, many of the sites could be affected.

94. Petitioner's archaeologist concluded that the
Project will have no adverse impacts on significant
archaeological resources provided the recommended mitigation
measures such as data recovery and preservation are carried out.

95. It is not clear how Petitioner's revised land use
plan will affect significant archaeological resources in the
area.

Air Quality

96. Although the Property will generate some impact on
air quality based on increases in traffic, Petitioner does not
anticipate that there will be any violations of any state or
federal air quality standards.
Anchialine Ponds

97. In their letter dated June 4, 1986 the U.S. Fish and Wildlife Service stated that no anchialine ponds within the Ooma II ahupua'a have been studied, and recommended a careful inspection of the Property be performed during high (spring) tides to identify any ponds within the proposed development boundaries to determine their habitat area and evaluate their biota.

98. The FEIS states that while it is believed that the Property does not contain any anchialine ponds, should there be any evidence to the contrary, the matter will be fully studied.

Flora and Fauna

99. A flora survey conducted in May 1986 inventoried a total of 51 species. Of these, 31 species were exotic, 18 species were native and 2 species were of Polynesian introduction. Of the 18 native species, 10 were indigenous (occur in the Hawaiian Islands and elsewhere) and 8 were endemic (occur only in the Hawaiian Islands). None of the native species were listed as endangered or threatened by the U.S. Fish and Wildlife Service.

100. No endangered wildlife species were observed during the survey. The Hawaiian Stilt or Aeo and the Hawaiian Hoary Bat, both endangered species, may fly over the project site. The bat probably feeds on insects along the coastal area during the evening and at night.
Agricultural Resources

101. The U.S. Soil Conservation Service rates all of the Property's soils as type VIII, which are unsuitable for agricultural purposes. The Land Study Bureau classifies the Property's soils as not suited for agricultural uses. The State Department of Agriculture's Agricultural Lands of Importance to the State of Hawaii ("ALISH") maps do not indicate the Property's soils as being either "prime" or "unique" quality.

102. Most of the Property is covered with lava or sand, rather than soils. Development of the Property will not reduce the inventory of agriculturally significant lands.

ADEQUACY OF PUBLIC SERVICES AND FACILITIES

Water

103. According to the FEIS (VI-7) the estimated water demand for the proposed Project is as follows:

<table>
<thead>
<tr>
<th>Use</th>
<th>Gallons Per Day (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>386,000</td>
</tr>
<tr>
<td>Multi-family Residential</td>
<td>193,000</td>
</tr>
<tr>
<td>Office Park</td>
<td>42,000</td>
</tr>
<tr>
<td>Marine Park</td>
<td>72,000</td>
</tr>
<tr>
<td>High-tech Aquaculture</td>
<td>208,000</td>
</tr>
<tr>
<td>Golf Course</td>
<td>313,000</td>
</tr>
<tr>
<td>Clubhouse</td>
<td>3,000</td>
</tr>
<tr>
<td>Beach Parking</td>
<td>1,000</td>
</tr>
<tr>
<td>Open Space</td>
<td>29,000</td>
</tr>
</tbody>
</table>

Total Average Demand 1,247,000 (1.25 MGD)

104. Petitioner believes that the water demand for the Project will not significantly change as a result of the land exchange.
105. The North Kona water system, maintained by the Hawaii County Department of Water Supply, serves the area between Keahole Airport to the north and Kealakekua to the south. The system is supplied by four wells and a shaft located at Kahaluu, situated between Kailua and Keauhou at the 600-foot level approximately 1.5 miles inland from the coast. A 16-inch transmission main runs to the north, but the pipe size decreases to 12 inches beyond the Honokohau Small Board Harbor. The transmission line terminates mauka of Keahole Airport at a 0.3 million-gallon reservoir which services the airport complex.

106. The Hawaii Water Resource Plan estimates that groundwater resources in the Kona area total 100 million gallons per day (MGD). The existing Kahaluu system has an estimated capacity of 8.4 MGD (cumulative "safe capacity" based on breakdown of one pump). Projections have indicated that the "safe capacity" may be reached by 1990.

107. Petitioner stated that they are considering extending the county water system and that their consultant will be developing plans as to how the system could be extended together with anticipated costs. Petitioner also indicated that they are considering joint development of water facilities with the Kohana-iki developers. Petitioner did not provide evidence to show that the County would be agreeable with its plans to improve the County water system, nor did the
Petitioner provide evidence to substantiate that these improvements can be developed in a timely manner to meet their projected development timeframes.

**Solid Waste**

108. There is no government operated pick—up service for solid waste disposal within the County of Hawaii.

109. The Kailua Landfill site presently serves the North Kona region, but is expected to reach capacity in 1990. A new 300-acre land fill site is being planned by the County at Pu'u Anahulu. This new facility is intended to serve both North Kona and Kohala. No timeframe was provided as to when the new landfill would be operational.

**Wastewater Treatment and Disposal**

110. The FEIS (p. VI-9) listed the estimated wastewater flows from the Project as follows:

<table>
<thead>
<tr>
<th>Use</th>
<th>Gallons Per Day (GPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel (600 rooms)</td>
<td>100,700</td>
</tr>
<tr>
<td>Golf Course</td>
<td>500</td>
</tr>
<tr>
<td>Clubhouse</td>
<td>16,200</td>
</tr>
<tr>
<td>Beach Parking Restrooms</td>
<td>1,000</td>
</tr>
<tr>
<td>Multi-family Residential (300 units)</td>
<td>65,600</td>
</tr>
<tr>
<td>Office Park</td>
<td>3,300</td>
</tr>
<tr>
<td>Marine Park</td>
<td>64,000</td>
</tr>
<tr>
<td>High-tech Aquaculture</td>
<td>23,000</td>
</tr>
<tr>
<td>Open Space</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Average Flows 274,300

111. Petitioner's environmental and civil engineer does not anticipate significant changes in the estimated wastewater flows from the Project as modified by the land exchange.
112. Petitioner has indicated that it plans to have a joint sewage treatment facility with the Kohanaiki project. Petitioner did not submit any evidence to indicate the feasibility of such a joint sewage treatment facility or the potential impacts on the Project.

113. Two alternatives for the disposal of the treated effluent are also proposed: golf course pond storage and irrigation or injection into deep wells. It is unclear as to the impacts of the proposed joint sewage treatment facility or disposal plans, or how such disposal will impact offshore water quality.

Seawater Disposal

114. The Project, as originally proposed without the land exchange, would discharge approximately 5 million gallons per day (MGD) of seawater from aquaculture operations.

115. Several alternatives for waste seawater disposal are proposed: cooperation with the HOST Park to share the use and cost of a seawater disposal facility; shallow surface trench disposal; large-diameter, deep, gravity-injection wells; and injection wells.

116. The FEIS states that independent development of a disposal system by the Petitioner may be economically unfeasible due to the relatively small quantity of discharge expected from the hi-tech aquaculture area of the Project. It states that opportunities for joint development and cost sharing with the HOST Park will be explored.
117. No commitments have been obtained by Petitioner to share the HOST Park seawater disposal facilities.

**Storm Drainage**

118. The Project, as originally proposed without the land exchange, is expected to increase storm run-off within the site from 260 cfs (cubic feet per second) to 450 cfs, particularly due to the increase in impervious surfaces. The overall drainage plan proposes to protect developed areas by intercepting storm run-off from open and off-site areas with a network of cutoff swales, ditches, inlets, and drain pipes located within the road right-of-ways. The use of unlined channels is proposed to allow infiltration of run-off into the porous lava rock to minimize flows at discharge points.

119. According to the FEIS, the main discharge points are coastal outlets located at the north and south ends of the Property. Run-off will drain naturally as sheetflow into the ocean, into a series of dry wells and by percolation into the ground.

120. Petitioner's environmental and civil engineer believed that the Project as originally proposed without the land exchange would have a minimal, insignificant impact on existing drainage patterns. It is unclear as to drainage impacts of Petitioner's revised land use plan.

**Traffic**

121. The FEIS indicates that successful development of the Kohanaiki Resort, the Project, and the HOST Park could
increase traffic volumes enough to exceed the existing highway
design capacity during peak hours.

122. The DOT has stated that intersection improvements
will be required on Queen Kaahumanu Highway, and that all plans
for improvements within the State Highway right-of-way must be
closely coordinated. An approval by the State Highways
Division is required for all improvements. All improvement
costs must be borne by the developer.

**Schools**

123. Petitioner states that projected levels of
students generated by the Project will not require any
additional school facilities. The State Department of
Education indicates that the enrollment impact from the
Project's proposed multifamily residential units will be
negligible.

**Fire**

124. County fire stations are located in the Kona area
at Captain Cook, Kailua-Kona, and Kawaihae. The closest
station is the Kailua-Kona Station which is located on Palani
Road approximately 8 miles from the Property with an
approximate response time of 10 minutes.

Petitioner indicates that the present fire station is
nearing its capacity and there may be a need for a new fire
station, preferably in the Kealakehe area.
Police

125. Police protection for the region is provided by the County from a regional police headquarters at Captain Cook. Petitioner anticipates that at full development, the Project may create a need for seven or eight additional patrol officers.

Hospital Services

126. Emergency ambulance service is available at the Lucy-Henriques Medical Center in Waimea, the Kailua-Kona Fire Station, and the Captain Cook Fire Station. The Kona Hospital has a basic life support ambulance unit and the Kailua-Kona Fire Station is equipped for off-shore emergencies.

Electrical Power and Communications

127. Existing electrical service in the surrounding area is provided by Hawaii Electric Light Company ("HELCO") via a 69-KV overhead transmission line located mauka of Queen Kaahumanu Highway. Present electrical generation capacity is 127 MW, with 102 MW peak demand.

The FEIS estimates a requirement of 7 MVA for the ultimate development of the Project. Two 12.47 KV distribution lines and a substation, consisting of a transformer and switching gear, would be required to handle the Project's estimated electrical demand.

128. Existing telephone service to the surrounding area is provided by Hawaiian Telephone Company. The closest
existing facilities are located approximately 100 feet mauka of Queen Kaahumanu Highway.

129. According to the FEIS, telephone service for the Project will require an underground cable under Queen Kaahumanu Highway to carry the existing telephone service to an on-site substation. The FEIS states that existing telephone customers would not experience any adverse effect since excess telephone capacity is available.

Recreational Services and Facilities

130. The FEIS provides that recreational amenities on the Property are presently limited to the coastal areas. The beaches fronting the site are not considered good swimming beaches due to the steep underwater drop off and the lack of a sand covered bottom. Wawaloli Beach, a beach park with minimal facilities near the NELH, is similarly unsuitable as a swimming beach.

131. The FEIS indicates that the development of the Project will improve beach access, which is currently limited to unpaved and seasonally unstable beach trails. The proposed land use plan for the Project provides paved parking areas adjacent to the beaches located at both ends of the Property. Portions of the shoreline fronting the Property may be physically modified to improve recreational amenities.

SOCIO-ECONOMIC BENEFITS AND IMPACT

Employment

132. Petitioner's Public Cost Benefit Study estimated the Project's number of construction employees based on factors
for full-time equivalent ("FTE") labor per construction unit. Based on the construction of 600 hotel rooms, 300 apartment units, 40 acres of commercial/office space, 50 acres of industrial, and $37.5 million of infrastructure costs, the Project is expected to create 2,050 FTE construction jobs.

133. A total of 1,195 direct FTE positions would be created assuming full and intensive development. An additional 250 FTE positions will be indirectly induced by the Project. Total employment growth is estimated at approximately 1,445 FTE positions at full Project build-out.

Housing

134. According to the FEIS the Project will have a significant impact on the demand for housing in the Kona area. Petitioner estimates demand for approximately 415 additional housing units. In comparison, the County of Hawaii General Plan provides that employee housing shall be provided at a maximum ratio of one employee unit for every two hotel units. Based on a 600-room hotel, this would indicate 300 employee housing units.

135. Petitioner indicates that it will work with the County to determine the method and degree of housing participation that is required and will proceed to take care of any housing requirements and obligations at an off-site location.

136. Current discussions between the State and County include the provision for a major planned community at
Kealakehe. As proposed, the development includes affordable housing, market rate housing, golf course, schools, commercial areas, a regional sewage treatment plant, offices and other services and facilities. It is conceivable that employee housing requirements placed on area developers can be satisfied within this development.

Fiscal Impacts

137. Public revenues from the Project will be generated through property, excise, employee income, and other taxes. Petitioner estimates the Project will generate tax revenues of approximately $5.7 million in stabilized contributions upon full development. The County will receive approximately $2.5 million. The State will receive approximately $3.2 million. In addition, some $4 million in tax revenues would be generated through economic multipliers in the community and the higher level of activity in the economy overall.

CONTIGUITY OF THE PROPOSED RECLASSIFICATION

138. The Property is contiguous to the Keahole Airport/HOST Park Urban District. Its southern boundary is adjacent to the proposed 470-acre Kohanaiki Resort.

CONFORMITY WITH THE HAWAII STATE PLAN

The proposed reclassification does not conform and is not consistent with the objectives, policies and guidelines of the Hawaii State Plan.

139. In the area of physical environment objectives relating to the enhancement of terrestrial, shoreline and
marine resources, the Project could potentially degrade the existing high quality of the nearshore waters which is of critical importance to the sustained economic viability of proposed ocean-related research and commercial enterprises of the HOST Park and the NELH. Petitioner's water monitoring program in coordination with the HOST Park, and the NELH, has not been finalized. However, the program, as presented, does not address the prevention of pollution problems.

Furthermore, the proposed program does not mention any treatment measures to be taken in the event pollution does occur nor does it address funding for such treatment.

The Project does not ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

140. With regard to the policies and objectives for physical environment—land, air and water quality, it has not been demonstrated that the Project will promote effective measures to achieve desired quality in Hawaii's coastal waters.

141. With regard to the objectives and policies for population growth, the Project does not encourage the development of land and water resources in a coordinated manner so as to provide levels of growth in each geographic area. Petitioner's Project will add a substantial amount of resort units to the area and Petitioner has not substantiated a need for such units.
142. With regard to the objective and policies for transportation facilities system, the Project does not encourage transportation systems that serve to accommodate present and future development needs of communities. Future uses of the development are potential sources of lawsuits and noise complaints due to the proximity of Keahole Airport and may hamper further development of the airport.

CONFORMANCE WITH STATE LAND USE LAW

143. The Petitioner's proposed reclassification does not conform to Hawaii Revised Statutes §§205-16 and 205-17 and the State Land Use District Regulations, Section 2-2, which provide standards for determining Urban District Boundaries and decision-making criteria for district boundary amendments.

Standards for Determining an Urban District

144. Petitioner has failed to show that the proposed district boundary amendment is reasonably necessary to accommodate growth and development and that there would be no significant adverse effects upon the offshore water quality within the vicinity.

145. The Project's close proximity to the Keahole Airport, the NELH, and the HOST Park contributes to the potential adverse impacts upon these uses.

146. Petitioner's market studies and other evidence did not adequately support and substantiate the need for additional visitor accommodation units.
Standards for Determining a Conservation District

147. Retaining the Property in the Conservation District at this time is appropriate to protect offshore water resources which are designated class "AA" by the Department of Health. Preservation in this class is necessary for oceanographic research and propagation of shellfish and marine activities presently being conducted by the NELH and the HOST Park; for the conservation of coral reefs and wilderness areas, and for aesthetic enjoyment.

Ruling on Proposed Findings of Fact

Any of the proposed findings of fact submitted by the Petitioner or the other parties not adopted by the Commission herein or rejected by clear contrary findings of fact herein, are hereby denied and rejected.

CONCLUSIONS OF LAW

Pursuant to Chapter 205, Hawaii Revised Statutes, as amended, and the Commission's Rules of Practice and Procedure and District Regulations, the Commission finds upon a preponderance of the evidence that the reclassification of the Property, which is the subject of the Petition, Docket No. A86-602, by Kahala Capital Corporation, consisting of approximately 313.66 acres of land from the Conservation District to the Urban District at Ooma, North Kona, County and Island of Hawaii, Hawaii Tax Map Key No. 7-3-09: 4, does not conform to the standards established in the State Land Use
District Regulations, is not reasonable and is violative of Section 205-2, Hawaii Revised Statutes, and the Hawaii State Plan, as set forth in Chapter 226, Hawaii Revised Statutes.

DECISION AND ORDER

IT IS HEREBY ORDERED that the Property, being the subject of the Petition in Docket No. A86-602, filed by Kahala Capital Corporation, consisting of approximately 313.66 acres, situate at Ooma, North Kona, County and Island of Hawaii, Hawaii Tax Map Key No. 7-3-09: 4, shall hereby remain in the Conservation District.
DOCKET NO. A86-602 - KAHALA CAPITAL CORPORATION

Done at Honolulu, Hawaii, this 18th day of September 1987, per motions on June 23, 1987 and September 9, 1987.

LAND USE COMMISSION
STATE OF HAWAII

By TEOFILO PHIL TACBIAN
Chairman and Commissioner

By WILLIAM W. L. YUEN
Commissioner

By ROBERT S. TAMAYE
Commissioner

By RICHARD B. F. CHOY
Commissioner

By SHARON R. HIMENO
Commissioner
BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of
KAHALA CAPITAL CORPORATION

To Amend the Conservation Land Use District Boundary into the Urban Land Use District for Approximately 313.55 Acres at O'oma, North Kona, Hawaii, State of Hawaii, Tax Map Key Number: 7-3-09: parcel 4

DOCKET NO. A86-602

CERTIFICATE OF SERVICE

I hereby certify that a copy of the Land Use Commission Findings of Fact, Conclusions of Law, and Decision and Order was served upon the following by either hand delivery or depositing the same in the U. S. Postal Service by certified mail:

ROGER A. ULVELING, Director
Department of Business and Economic Development
State of Hawaii
250 South King Street
Honolulu, Hawaii 96813

ALBERT LONO LYMAN, Planning Director
Hawaii County Planning Department
25 Aupuni Street
Hilo, Hawaii 96720

BENJAMIN KUDO, Esq.

CERT. GARY G. N. WONG, Esq.
Kobayashi, Watanabe, Sugita, and Kawashima
745 Fort Street, 8th Floor
Honolulu, Hawaii 96813

DATE: Honolulu, Hawaii, this 18th day of September 1987.

ESTHER UEDA
Executive Officer
DOCKET NO. A86-602 - KAHALA CAPITAL CORPORATION

A copy of the Land Use Commission's Decision and Order was served upon the following by regular mail on September 18, 1987.

EVERETT KANESHIGE, Deputy Attorney General
Department of the Attorney General
465 South King Street, Room 200
Honolulu, Hawaii 96813

Deputy Corporation Counsel
Office of the Corporation Counsel
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

NORBERT SCHLEI, Chairman
Kahala Capital Corporation
c/o Hughes, Hubbard & Reed
555 South Flower Street
Los Angeles, California 90011

REPRESENTATIVE VIRGINIA ISBELL
House of Representatives
State Capitol
Honolulu, Hawaii 96813

COUNCILMAN RUSSELL S. KOKUBUN
County Council, County of Hawaii
Hawaii County Building
25 Aupuni Street
Hilo, Hawaii 96720

KAY YAMADA
High Technology Development Corporation
220 South King Street, Suite 252
Honolulu, Hawaii 96813