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BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of the DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT To Amend the Conservation Land Use District Boundary into the Urban Land Use District for Approximately 547 Acres at Keahole, North Kona, Hawaii, Hawaii, Tax Map Key Nos.: 7-3-09: Portion of 5 and 7-3-43: Portion of 3	DOCKET NO. A85-592 DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

This is to certify that this is a true and correct copy of the Decision and Order on file in the office of the State Land Use Commission, Honolulu Hawaii.

FEB 6 1986 by [signature]
Date Executive Officer

FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND DECISION AND ORDER

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FINDINGS OF FACT, CONCLUSION OF LAW
AND DECISION AND ORDER

The Department of Planning and Economic Development (hereinafter the "Petitioner"), a principal executive department of the State of Hawaii, filed this Petition on behalf of the High Technology Development corporation (hereinafter "HTDC") on March 19, 1985, pursuant to Hawaii Revised Statutes Section 205-4, and the Rules of Practice and Procedure of the Land Use Commission, State of Hawaii, to amend the land use district boundaries of approximately 547 acres of land, Hawaii Tax Map Key Nos.: 7-3-09: Portion of 5 and 7-3-43: Portion of 3 (hereinafter referred to as the "Property") from the Conservation District to the Urban District for a research and technology park. The Land Use Commission (hereinafter the "Commission"), having heard and examined the testimony,

evidence and argument of counsel presented during the hearings, and the proposed findings of fact and conclusions of law, hereby makes the following findings of fact and conclusions of law:

FINDINGS OF FACT

PROCEDURAL MATTERS

1. The Commission conducted hearings on the Petition on August 6, 7, 1985, pursuant to notice published on June 28, 1985, in the Hawaii Tribune Herald and the Honolulu Advertiser.

2. Sherwood Greenwell, Clinton Taylor, Putnam Clark, Peter Young, Representative Virginia Isbell, Gary Okamoto, and Alika Kahilianu Cooper testified as public witnesses on August 6, 1985.

3. The Commission did not receive any petitions for intervention.

DESCRIPTION OF THE PROPERTY

4. The Property is located at Keahole, Hawaii and consists of approximately 547 acres of land, identified as Hawaii Tax Map Key parcels 7-3-09: portion of 5 and 7-3-43: portion of 3.

The Property is adjacent to the southern boundary of the Keahole Airport and the Natural Energy Laboratory of Hawaii (NELH), east of the State's Keahole Agricultural Park, makai of the Queen Kaahumanu Highway, and northwest of a private undeveloped parcel of land.

5. The Property is presently vacant.

6. Topography of the Property is characterized by slopes rising mauka from sea level to an elevation of approximately 120 feet where the Property abuts the Queen Kaahumanu Highway.

7. Average annual rainfall on the Property is approximately 25 inches. The Property's good drainage is due to the porous lava and low average rainfall.

8. The Land Study Bureau's Detailed Land Classification study for the Island of Hawaii designates the Property as class "E" lands. Class "E" lands are very poor or the least suited for agricultural uses.

9. The U. S. Department of Agriculture Soil Conservation Service Soil Survey report for the area designates the Property's soil types as Aa (rLV) and Pahoehoe (rLW) lava flows. These lava flows typically have no soil covering and are bare of vegetation except for mosses, lichens, ferns and a few small ohia trees.

10. A portion of the Property located along the shoreline is subject to wave action and tsunami inundation. The Federal Insurance Administration Flood Insurance Maps designate this portion of the Property in zones V15 (areas of 100 year coastal flood with wave action; base flood elevations and flood hazard factors determined) and A4 (areas of 100 year flood; base flood elevations and flood hazard factors determined).

11. The State of Hawaii owns the Property in fee. The State Department of Transportation (the "DOT") will lease a

portion of the Property, which it holds by Executive Order No. 2472 dated November 7, 1969 for the Keahole Airport, to HTDC for a period of sixty-five years. The remaining balance of the Property is under the control and management of the State Department of Land and Natural Resources ("DLNR"). DLNR will transfer the Property to HTDC in fee by an Executive Order. Both agencies have authorized the Petitioner to seek the boundary amendment request.

DEVELOPMENT PROPOSAL

12. HTDC proposes to develop a research and technology industrial park to be known as the Hawaii Ocean Science and Technology Park (the "HOST Park"). HTDC proposes to subdivide the Property into 26 three acre lots and 16 lots twenty acres or larger, for a total of 42 lots. HTDC will establish development rules in order to assure a high quality of coordinated development and a minimum of adverse environmental impacts, and to prohibit tenants from conducting non marine related industrial uses on the Property. HTDC proposes to market lots at or below existing market rates for various types of uses as permitted under State law.

13. HTDC proposes to lease HOST Park lots to tenants doing business in ocean-related science and technology industries limited to promoting or providing research, the development and commercial application of technology, intensive activities that utilize ocean water as a resource or depend on proximity to the ocean, including aquaculture, mariculture and ocean-related activities.

14. HTDC proposes to reserve approximately 50 acres of the Property, located along the shoreline, as a "Shoreline Conservation Public Recreation" area. HTDC proposes to limit development in this area to ocean water pipes, pump station, and parking lot for beach users.

15. HTDC also proposes to develop a visitor center and a restaurant on the Property, and to construct an access road, roadway lighting, cold and warm ocean water systems, potable water and sewerage systems, and electrical services.

16. In its HOST Park Master Plan HTDC proposes to divide the proposed HOST Park into two types of use areas designated Ocean Water Commercial Area and Campus Industrial/ Support Commercial Area and to include the following major land uses:

Major use areas	Approximate acreage	
Ocean Water Commercial Area		
High volume ocean water users	140	
Moderate volume ocean water users	120	
Low volume ocean water users	100	
Subtotal		360
Campus Industrial/Support Commercial Area		
Small acreage industrial & support commercial	60	
Education/Information	25	
Subtotal		85
Shoreline conservation, public recreation & open space	80	80
Infrastructure	22	22
TOTAL		547

HTDC cites the Hawaiian Abalone Farm located at the NELH as an example of a high volume ocean water user. Macro-algae production is a typical moderate volume ocean water user, while Cyanotech Company produces micro-algae, which at the NELH is considered a low volume user.

17. HTDC proposes to allow in the Ocean Water Commercial Area, land-intensive uses, large-scale production uses, and other uses that use ocean water or brackish water resources such as: aquaculture, agricultural operations that use ocean or brackish water, research, development and commercialization of ocean-related technologies and other uses as proposed in HTDC's Development Rules.

HTDC proposes to allow in the Campus Industrial/ Support Commercial Area, ocean-related science and technology uses and tenant support services that require approximately three acres of land, such as biotechnology, design, manufacturing and assembly of ocean-related equipment, administrative offices, visitor information center, business support services, restaurant and other uses as proposed in HTDC's Development Rules.

18. HTDC propose to develop the HOST Park in two phases. HTDC proposes to complete Phase I improvements in 1987 and Phase II improvements in 1990.

PETITIONER'S FINANCIAL CAPABILITY
TO UNDERTAKE THE PROPOSED DEVELOPMENT

19. HTDC estimates that the HOST Park Phase I will cost approximately $10,178,000.00 and for Phase II, approximately $3,446,000.00, for a total of approximately $13,624,000.00.

20. The 1985 Hawaii State Legislature appropriated $7,855,000.00 to HTDC for fiscal year 1985-1987 to initiate the HOST Park project. HTDC will require additional legislative authority to complete development of HOST Park.

Hawaii County is processing a Community Development Block Grant of $150,000.00 for marketing the proposed project.

STATE AND COUNTY PLANS AND PROGRAMS

21. The Property is situate within the State Land Use Conservation District as reflected on State Land Use District Map H-2 (Keahole). The Property abuts Urban and Conservation District lands to the north and Conservation District lands to the south, east and west. Agricultural District lands are located across Queen Kaahumanu Highway to the east at the Keahole Agricultural Park.

22. The County of Hawaii General Plan Land Use Pattern Allocation Guide (LUPAG) Map designates the Property as "Industrial" and "Conservation". The proposed use will not require a General Plan Amendment.

23. The County of Hawaii's zoning for the Property is "Open". The County must amend its zoning ordinance in order to accommodate the proposed HOST Park.

24. The Property is situate within the County of Hawaii's Special Management Area (SMA).

NEED FOR THE PROPOSED DEVELOPMENT

25. The Hawaii State Legislature has determined a need for high technology parks, and has authorized HTDC to develop high technology parks and to lease and sublease lots within these parks to qualified individuals and organizations involved in technology intensive emerging industries.

The HTDC's Statewide Strategy for High Technology Growth report, published in 1985, identifies potential areas of high-tech development for Hawaii. The HOST Park will be developed to accommodate high-tech developments in the areas of oceanography, high intensity aquaculture, marine biotechnology, renewable energy and related software development.

26. HTDC identified the following reasons for locating the HOST Park on the Property:

A) The State Department of Transportation and Department of Land and Natural Resources own the Property.

B) Air and boat transportation facilities located nearby provide good access (e.g. Keahole Airport, Kawaihae Harbor) to market destinations.

C) Industrial and warehouse facilities (Kona Industrial Park, Kaloko Light Industrial

Subdivision) situated between Kailua-Kona and the Keahole Airport provide needed locations for related high tech support/service businesses.

D) The NELH facility located next to the proposed development is an incubator facility which will assist the marketing of the HOST Park by serving as a site where users may test and demonstrate ideas and experiments developed at universities and laboratories.

E) OTEC (Ocean Thermal Energy Conversion), Open-Cycle, OTEC Closed-Cycle, aquaculture, agriculture, and other ocean-related research activities can use deep ocean water which is available to this site .

27. HTDC believes NELH and the HOST Park can be marketed together as an attractive and complementary package to high technology corporations interested in establishing their operations in Hawaii.

IMPACT UPON RESOURCES OF THE AREA

Water Quality

28. Assuming the highest projected water consumption relating to aquaculture, HTDC projects that when fully developed the HOST Park would use and return approximately 144 million gallons per day (MGD) of ocean water.

29. HTDC proposes to dispose the return water into the underlying brackish ground water by using a shallow trench. Lava in the area is very porous and of sufficient thickness to insure adequate storage capacity and filtration of the waste seawater through the underlying lava.

HTDC anticipates this method of return water disposal will have a minimal impact on ocean water quality.

30. HTDC proposes to dispose sewage by septic tanks and leaching fields. HTDC anticipates that the domestic sewage effluent will have significant diffusion and dilution and its impacts on the groundwater and ocean water will be minimal.

31. Petitioner will cause HTDC to monitor the groundwater ocean water quality to mitigate negative impacts.

Archaeological and Historical Resources

32. Chiniago, Inc. identified 45 historical sites during an archaeological reconnaissance of the Property. Chiniago, Inc. concluded that none of the sites are of such significance to warrant preservation, but recommended that archaeological salvage excavations should be conducted prior to construction at any of these sites to remove the scientific information.

33. HTDC proposes to preserve and protect the Mamalahoa Trail and Site 10,161, a complex of C-shaped shelter sites in the northeastern corner of the Property. HTDC proposes to conduct archaeological excavation and site

recording of those sites to be developed pursuant to the HOST Park's Master Plan. HTDC will require that any tenant discovering unknown archaeological remains temporarily stop construction activities, notify the State Historic Preservation Office, and take steps to record such sites and remains.

Flora and Fauna

34. The majority of the mauka portion of the Property is desert-like with sparse dry grasses. The HTDC's consultant, The Traverse Group, Inc. ("Traverse"), found no significant species of flora and fauna in this section of the Property. The beach zone, a narrow strip of coastline approximately 300 feet wide, is a habitat for naupaka, kiawe, hialoa, beach morning glory, Bermuda grass, and heliotrope tree. Traverse found no rare or endangered plant species on the Property.

HTDC proposes to construct pipes and pumps in the beach zone, and anticipates heavy public use of the beach zone. HTDC proposes to mitigate adverse impacts by replanting any beach vegetation that may be destroyed during construction activities and to apply land use controls to prevent the destruction of beach vegetation.

35. HTDC believes that the endangered Hawaiian owl (pueo) and the Hawaiian stilt (ae'o) may inhabit the Property. HTDC has found indigenous animals on or near the Property including the golden plover, wandering tattler, and the ruddy turnstone. The endemic Hawaiian hoary bat may also inhabit in the Property.

HTDC does not anticipate the proposed project will adversely impact the Hawaiian owl, the Hawaiian stilt or the Hawaiian hoary bat since there are other similar habitats available nearby.

Visual

36. HTDC proposes to construct a 100-foot wide landscaping and open space buffer zone between the HOST Park and the Queen Kaahumanu Highway. HTDC propose to permit tenants to construct only low-rise structures.

Recreational Resource

37. HTDC does not anticipate the proposed development will have significant impact on the recreational resources of the area. HTDC will designate the shoreline area as a "Shoreline Conservation Public Recreation Area" with minimal improvements. Petitioner will cause HTDC to provide restroom and parking facilities in this area designated for beach users.

Coastal Resources and Hazards

38. The State Department of Health designates the coastal waters off Keahole Point as Class AA.

HTDC projects that construction activities in the NELH research corridor and offshore of the HOST Park and the discharge of ocean waste water from the HOST Park operations could affect the quality of the Class AA waters off Keahole Point.

39. HTDC proposes to warm aquaculture wastewater before returning it to the ocean. HDTC anticipates that the

higher levels of ammonia in the return wastewater could increase algae growth and in turn promote larger fish stocks due to a larger food source.

HTDC proposes to monitor nearshore water quality in order to mitigate pollution problem at the early stage.

40. HTDC found six anchialine ponds on the Property, but does not classify any of these ponds as having high natural value.

41. The Governor accepted HTDC's Environmental Impact Statement (EIS) for the proposed HOST Park on September 20, 1985.

ADEQUACY OF PUBLIC SERVICES AND FACILITIES

Fire and Police Protection

42. County of Hawaii provides fire protection service from the Keahole Airport Fire facility and from the County's fire station located at Kailua-Kona.

43. County of Hawaii can provide police services.

Electrical and Telephone Services

44. Hawaii Electric Light Co., Inc. and Hawaiian Telephone Company can provide electrical and telephone services to the Property.

Sewage Treatment and Disposal

45. No municipal sewerage system serves this area. HTDC proposes to use septic tanks and leaching fields for domestic sewage disposal. HTDC anticipates this method of disposal will have minimal impact on the ground water quality.

Solid Waste Disposal

46. There is no government operated pick up service for solid waste disposal within the County of Hawaii. HTDC will notify individual tenants to arrange for the collection and disposal of their industrial solid waste.

Drainage

47. HTDC anticipates no adverse drainage impacts due to the low rainfall in the area and the porous lava terrain. Runoff will be directed along road rights-of-way to infiltration trenches.

Roadway and Highway Services and Facilities

48. HTDC proposes to use the existing NELH access road from Queen Kaahumanu Highway as the access road to the HOST Park.

HTDC proposes to construct new secondary roads to provide vehicular access to each sector of the HOST Park. Petitioner will require HTDC to locate underground utilities adjacent to the road shoulders.

HTDC proposes to construct acceleration and deceleration lanes at the intersection of the NELH access road and Queen Kaahumanu Highway.

Water Service

49. HTDC proposes to supply fresh water to the proposed project from the County's existing 12-inch water line along the Queen Kaahumanu Highway. HTDC will construct a new

10-inch underground water line from this existing line under the south shoulder of the HOST Park's main road to a network of 6-inch and 8-inch freshwater lines for both human consumption and fire protection.

The Department of Water Supply will supply the HOST Park with approximately 400,000 gallons per day.

Schools

50. The Department of Education has stated that all West Hawaii public schools are operating at capacity, but believes that expansion of facilities will probably occur with or without the project.

CONSISTENCY WITH THE LAND USE LAW AND DISTRICT REGULATIONS

51. The proposed development is reasonably necessary to accommodate growth and development in the County of Hawaii, is important in the creation of permanent employment in the Kailua-Kona area, and is an essential component in the State's long-range plan to foster "clean" industries in the State.

52. The proposed development will make use of existing public utility services available from Keahole Airport and services not presently available, such as sewage disposal and fresh water supply, will be provided within the HOST Park.

53. The HOST Park will be contiguous to the existing Urban District containing Keahole Airport and the Natural Energy Laboratory of Hawaii.

54. The HOST Park site is consistent with the Land Use Pattern Allocation Guide (LUPAG) Map of the Hawaii County

General Plan. The proposed development will not require a General Plan Amendment. The proposed activities and uses of the Property conform to the provisions of the Hawaii County Ordinances for industrial zoning.

55. The proposed development will have no significant adverse effects upon the agricultural, natural or other resources of the area. Improvements of public access will enhance recreational use of the beach zone by the construction of a visitor center and beach facilities.

56. When fully developed, the proposed HOST Park could add a minimum of 400 jobs and a maximum of 2200 jobs on-site and approximately $5,700,000.00 to $31,000,000.00 annually in wages to the State's economy. Multiplier effects from the tenants' purchase of services, payment of taxes, and the export of cultured species would add considerably to the figure for direct wages.

57. Petitioner estimates that a majority of the employees will be local residents. Petitioner will work with the County to provide affordable housing.

58. The proposed HOST Park will neither have an adverse impact on operations at Keahole Airport nor prevent future airport expansion.

CONFORMANCE WITH THE HAWAII STATE PLAN

59. The proposed reclassification is in conformance with the following components of the Hawaii State Plan:

a. Objectives and policies for the economy - potential growth activities.

The proposed HOST Park's orientation toward the development and commercialization of ocean related high technology products and services will serve to diversify the economic base of the island of Hawaii as well as for the State.

The HOST Park will encourage investment and employment in energy and marine-related industries. This facility would also enhance Hawaii's role as a center for ocean technology and education.

b. Priority Guidelines

The HOST Park will promote the development of industries that take advantage of Hawaii's unique location and available resources.

CONSISTENCY WITH HAWAII COASTAL ZONE MANAGEMENT OBJECTIVES AND POLICIES

60. HRS §205A-2 sets out objectives and policies of the Coastal Zone Management Program (CZM). The relationship of the proposed project to these objectives and policies are:

Recreational Resources

HTDC will afford public access to the entire length of the HOST Park shoreline for public recreational use.

INCREMENTAL DISTRICTING

61. Petitioner proposes to complete the entire project within five years after obtaining the Commission's reclassification.

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 Rules of Practice and Procedure and District Regulations of the State Land Use Commission, the Commission finds upon a preponderance of evidence that the reclassification of a portion of the 547 acre Property, which is the subject of the Petition, Docket No. A85-592 by the Department of Planning and Economic Development, consisting of approximately 507.61 acres of land from the Conservation District to the Urban District at Keahole, North Kona, Hawaii, Hawaii, Hawaii Tax Map Key Nos.: 7-3-09: Portion of 5 and 7-3-43: Portion of 3 for a research and technology park, subject to the conditions stated below, conforms to the standards established in the State Land Use District Regulations, is reasonable and non-violative of Section 205-2 and the Hawaii State Plan as set forth in Chapter 226, Hawaii Revised Statutes, as amended.

The Commission further concludes that reclassification of the remaining balance of approximately 39.39 acres consisting of that portion of the Property between the shoreline and the 300 feet shoreline setback in Docket No. A85-592 by Department of Planning and Economic Development at Keahole, North, Kona, Hawaii, Hawaii, Tax Map Key No.: 7-3-43: Portion of 3, to be used primarily for open space, is not reasonably necessary, would not conform to the standards established by the State Land Use District Regulations, and would be violative of Hawaii Revised Statutes, Section 205-2 and Chapter 226.

ORDER

IT IS HEREBY ORDERED that a portion of the Property which is the subject of Docket No. A85-592 by Department of Planning and Economic Development, consisting of approximately 507.61 acres of land, located mauka of the 300 foot shoreline setback line, situate at Keahole, North Kona, Hawaii, Hawaii, identified as Hawaii Tax Map Key Nos.: 7-3-09: portion of parcel 5 and portion of parcel 3, and also approximately identified on Exhibit A attached hereto and incorporated herein, shall be and the same is hereby reclassified from the Conservation District to the Urban District and the State Land Use District Boundaries are amended accordingly, subject to the following conditions:

1) Petitioner shall develop the Property as a research and technology park for ocean-related science and technology users, which users shall be limited to industries promoting or providing research, the development and commercial application of technology, intensive activities that utilize ocean water as a resource or depend on proximity to the ocean, including aquaculture, mariculture and ocean-related activities.

2) Prior to any construction activity Petitioner shall submit to the Department of Land and Natural Resources Historic Preservation Office a satisfactory historic preservation plan prepared by a qualified archaeologist, which plan will include appropriate measures to preserve the Mamalahoa Trail and all sites deemed appropriate for preservation .

IT IS ALSO HEREBY ORDERED that reclassification of the remaining balance of the Property makai of the 300 foot shoreline setback line consisting of approximately 39.39 acres of land, situate at Keahole, North Kona, Hawaii, Hawaii, identified as Hawaii Tax Map Key No.: 7-3-43: portion of parcel 3, and also identified on Exhibits A and B attached hereto and incorporated herein, is hereby denied and this portion of the Property shall remain in the Conservation District.

DOCKET NO. A85-592 - DEPARTMENT OF PLANNING & ECONOMIC DEVELOPMENT

Done at Honolulu, Hawaii, this 6th day of February 1986, per motions on November 5, 1985 and December 10, 1985.

LAND USE COMMISSION
STATE OF HAWAII

By _____
TEOFILO PHIL TACBIAN
Chairman and Commissioner

By _____
FREDERICK P. WHITTEMORE
Vice Chairman and Commissioner

By _____
WINONA E. RUBIN
Commissioner

By _____
WILLIAM W. L. YUEN
Commissioner

By _____
EVERETT L. CUSKADEN
Commissioner

By _____
TORU SUZUKI
Commissioner

By _____
ROBERT S. TAMAYE
Commissioner