BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of  
TOM GENTRY AND GENTRY-PACIFIC,  
LTD.  

To Amend the Agricultural Land Use  
District Boundary into the Urban  
Land Use District for Approximately  
1,395 Acres at Waiawa, Ewa, Oahu,  
State of Hawaii, Tax Map Key Nos.:  
9-4-06: Portion of 26; 9-6-04:  
Portion of 1 and Portion of 16;  
and 9-6-05: Portion of 1, Portion  
of 7 and Portion of 14

DOCKET NO. A87-610

TOM GENTRY AND GENTRY-PACIFIC, LTD.

FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND DECISION AND ORDER

EXHIBIT "48"
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To Amend the Agricultural Land Use District Boundary into the Urban Land Use District for Approximately 1,395 Acres at Waiawa, Ewa, Oahu, State of Hawaii, Tax Map Key Nos.: 9-4-06: Portion of 26; 9-6-04: Portion of 1 and Portion of 16; and 9-6-05: Portion of 1, Portion of 7 and Portion of 14

FINDINGS OF FACT,
CONCLUSIONS OF LAW AND DECISION AND ORDER

Tom Gentry, a Hawaii resident, and Gentry Pacific, Ltd., a Hawaii corporation, (hereinafter collectively referred to as "Petitioner") filed a Petition on April 21, 1987, and amendments to the Petition on May 14 and May 26, 1987, pursuant to Chapter 205, Hawaii Revised Statutes, as amended ("HRS"), and Title 15, Subchapter 3, Chapter 15, Hawaii Administrative Rules, as amended (hereinafter "Commission Rules"), to amend the Land Use District Boundary to reclassify approximately 1,395 acres of land situated at Waiawa, Ewa, Oahu, State of Hawaii, Tax Map Key Numbers: 9-4-06: Portion of 26; 9-6-04: Portion of 1 and Portion of 16; and 9-6-05: Portion of 1, Portion of 7 and Portion of 14, (hereinafter "Property"), from the Agricultural District to the Urban District to develop a
residential community. The Land Use Commission (hereinafter "Commission"), having heard the testimony, and examined the evidence presented during the hearings and the Petitioner's and the Department of Business and Economic Development's (hereinafter "DBED") proposed findings of fact, conclusions of law and decision and order, as amended, hereby makes the following findings of fact:

**FINDINGS OF FACT**

**PROCEDURAL MATTERS**


4. The Commission received no requests to intervene in the proceeding.


DESCRIPTION OF THE PROPERTY

7. The Property, consisting of two separate parcels totaling approximately 1,395 acres, is located east of Interstate Highway H-2, southwest of Castle and Cooke agricultural lands and the lower slopes of the Koolau Mountains, and northwest of the Manana and Pacific Palisades subdivisions. The Waiawa Interchange of the interstate highway system is to the southern tip of the Property.

The residential communities of Gentry-Waipio, Crestview and Seaview are located further to the west. The town of Waipahu lies to the southwest and the community of Mililani Town is located approximately 4 miles to the northwest.

8. The 180-acre Waiawa Correctional Facility, a minimum security facility under the jurisdiction of the State Department of Corrections, is situated at the northern boundary of the Property. Access to Waiawa Correctional Facility is provided through the Property from a roadway easement.

9. Access to the Property is currently available from the Mililani Cemetery Road and Waihona Street.

10. The Property is owned in fee simple by the Bernice P. Bishop Estate and under lease to Oahu Sugar Company until 1990. Bernice P. Bishop Estate (hereinafter referred to as Bishop Estate), by letter dated April 9, 1987, consented to
the Petitioner's application to the State Land Use Commission for the reclassification of the Property to the Urban Land Use District.

11. Petitioner, by virtue of a development agreement, has the right to purchase those portions of the Property designated for residential use and to lease the areas designated for nonresidential use.

12. Elevation of the Property ranges from approximately 100 feet to 600 feet above sea level.

13. Topography of the Property is relatively flat, although there are steeper slopes running through the Property.

14. Average annual rainfall ranges about 26 inches in the lower portion of the Property to about 43 inches in the upper portion of the Property.

15. The State Department of Agriculture's Agricultural Lands of Importance to the State of Hawaii (ALISH) system classifies the majority of the Property as "Prime." A smaller portion is classified as "Other Important Agricultural Lands."

16. The Land Study Bureau Detailed Land Classification - Island of Oahu Overall (Master) Productivity Ratings for most of the Property are A30i, A49, A49i, A12li, B50i, B83i, and B122i. The "A" rating indicates the highest agricultural productivity and the "B" rating indicates only minor limitations on agricultural productivity. The range of
the rating system is from "A" to "E", "E" being the lowest rating.

16. The United States Department of Agriculture Soil Conservation Service, Soil Survey Report for the Islands of Kauai, Oahu, Maui, Molokai, and Lanai classifies the soil within the Property as Wahiawa silty clay, Molokai silty clay loam, Lahaina silty clay, Manana silty clay loam, Helemano silty clay, Kawaihapa stony clay loam, Ewa silty clay loam, Rock land and Fill Land.

17. The portions of the Property designated as "Prime" agricultural lands are made up largely of the soil series, Wahiawa silty clay: 0 to 3 percent slopes (WaA), 3 to 8 percent slopes (WaB), and 8 to 15 percent slopes (WaC). This series consists of well-drained soils on uplands of the island of Oahu. These soils developed in residuum and old alluvium derived from basic igneous rock. They are nearly level to moderately steep. Permeability is moderately rapid. Runoff is slow and the erosion hazard is slight on WaA and WaB soils, and medium and moderate on WaC soils.

18. Other soils on the Property are of the soil series, Molokai silty clay loam: 3 to 7 percent slopes (MuB), 7 to 15 percent slopes (MuC), and 15 to 25 percent slopes (MuD). The Molokai series consists of well-drained soils on uplands, formed in material weathered from basic igneous rock. They are nearly level to moderately steep and exhibit low
shrink-swell potential. Permeability is moderate, runoff is slow to medium and the erosion hazard is slight to moderate on MuB soils. Runoff is medium on MuC and MuD soils; the erosion hazard is moderate on MuC and severe on MuD soils.

19. Soils of the Lahaina series are also found in the property: Lahaina silty clay, 0 to 3 percent slopes (LaA), 3 to 7 percent slopes (LaB), 7 to 15 percent slopes (LaC), and severely eroded (LaC3). This series consists of well-drained soils on uplands of Oahu. These soils developed in material weathered from basic igneous rock. They are nearly level to steep. Permeability is moderate; runoff is slow; erosion hazard is slight on LaA and LaB soils. The runoff is medium and the erosion hazard is severe on LaC3 soils.

20. Soils of the Manana series found in the property consist of: Manana silty clay loam, 2 to 6 percent slopes (MoB), 12 to 25 percent slopes eroded (MoD2) and Manana silty clay, 3 to 8 percent slopes (MpB), 8 to 15 percent slopes (MpC), and 12 to 25 percent slopes, eroded (MpD2). This series consists of well-drained soils on uplands on the island of Oahu. These soils developed in material weathered from basic igneous rock. They are gently sloping to steep. The soils of this series are used for sugarcane, pineapple, and pasture. Permeability is moderately rapid above the panlike sheet, and moderate below. Runoff is slow and the erosion hazard is slight on the MoB soil. The runoff is rapid and erosion hazard
is severe on the MoD2 soil. Runoff is slow and the erosion hazard is slight on the MpB and MpC soils. Runoff is rapid and erosion hazard is severe on the MpD2 soil.

21. Soils of the Helemano series consist of well-drained soils on alluvial fans and colluvial slopes on the sides of gulches. They are steep to extremely steep. Helemano silty clay, 30 to 90 percent slopes (HLMG), is on the sides of V-shaped gulches. Permeability is moderately rapid. Runoff is medium to rapid, and the erosion hazard is severe to very severe.

22. Soils of the Kawaihapai series are found in the eastern portion the Property. This series consists of well-drained soils in drainageways and on alluvial fans on the coastal plains. These soils formed in alluvium derived from basic igneous rock in humid uplands. Kawaihapai stony clay loam, 2 to 6 percent (KlaB), has enough stones to hinder, but not prevent, cultivation. Runoff is slow, and the erosion hazard is slight.

23. Soils of the Ewa series are found in the southern portion of the Property. This series consists of well-drained soils on alluvial fans and terraces. These soils developed in alluvium derived from basic igneous rock. Ewa silty clay loam, 3 to 6 percent slopes (EaB), has a surface layer of dark reddish-brown silty clay loam about 18 inches thick. Permeability is moderate. Runoff is slow, and the erosion hazard is slight.
24. In a representative soil profile, Kawaihapai clay loam, 0 to 2 percent slopes (K1A), similar to K1aB, has a dark-brown clay loam surface layer about 22 inches thick. The next layer is dark-brown stratified sandy loam about 32 inches thick. The substratum is stony and gravelly.

25. The eastern boundary of the Property is bordered by Rock land (iRK), where exposed rock covers 25 to 90 percent of the surface. Rock outcrops and very shallow soils are the main characteristics. Rock land has high shrink-swell potential.

26. A small amount of Fill Land (Fd) is found in the Property. This land type consists mostly of areas filled with bagasse and slurry from sugar mills. A few areas are filled with material from dredging and from soil excavations.

27. The Property and surrounding areas serves as a recharge area for the underlying water table from which the Waiawa Water Tunnel (Waiawa Shaft), situated immediately to the east of the Property, draws potable water for the Pearl Harbor Naval Base, Hickam Air Force Base and military housing areas. The Waiawa Shaft is owned and operated by the U. S. Department of the Navy.

28. The U.S. Federal Insurance Administration's Flood Insurance Study conducted for the City and County of Honolulu indicates that the Property is located in Zone C, an area of minimal flooding, and Zone D, an area of undetermined, but possible, flood hazards.
DESCRIPTION OF THE PROPOSED DEVELOPMENT

29. Petitioner proposes to develop a self contained residential community consisting of residential dwellings, low and medium density apartments, parks, open space, two golf courses, commercial and light industrial uses and roadways. Petitioner proposes to offer about half of the residential dwellings as retirement/leisure housing opportunities for owner-occupants 55 years of age and older.

30. A summary of the proposed land use allocations is as follows:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-family Residential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional</td>
<td>402</td>
<td>3,216</td>
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<tr>
<td>Retirement/Leisure Village</td>
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<tr>
<td>Subtotal</td>
<td>727</td>
<td>5,816</td>
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<tr>
<td>Multi-family Residential</td>
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<td></td>
</tr>
<tr>
<td>Low Density Conventional</td>
<td>NA*</td>
<td>540</td>
</tr>
<tr>
<td>Low Density Retirement/Leisure Village</td>
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<td>Medium Density Retirement/Leisure Village</td>
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<tr>
<td>Commercial</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Two Golf Courses, Open Space, Parks, School</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Major Roadways</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Grand Totals</td>
<td>1,395</td>
<td>7,906</td>
</tr>
</tbody>
</table>

*NA - Information not available at this time.
31. The proposed project represents the first increment of a 2,500-acre master planned residential community for Waiau.

Residential and Apartment Units

32. Petitioner proposes to develop the residential units to meet housing needs of the low/moderate to mid-high income groups. A variety of residential and apartment unit types are proposed, including zero-lot-line homes, patio homes, townhouses, duplexes, garden-type apartment units, and mid-rise apartment units.

Fifty percent of these units are proposed for a leisure/retirement community ("leisure village") to include self-contained activities such as golf, tennis, swimming, exercise rooms, library, game rooms and meeting facilities. Petitioner also proposes community features to include security, maintenance services, landscape amenities and health care availability. A combination of single family detached units, townhouses, duplexes, and condominiums is planned. The average household size per unit is 1.6 persons.

Petitioner proposes to impose deed restrictions to set a specific age limit on the ownership and/or occupancy of property in the leisure village.

33. Petitioner's proposed selling prices for the entire development would be based on market conditions at the time of sale. Petitioner estimates that based on 1985 market conditions, the average single-family home would sell for
approximately $125,000 to $165,000 and apartments would cost approximately $60,000 to $100,000. The unit prices in the retirement community may be slightly higher.

34. Petitioner proposes to participate in affordable housing programs by committing thirty percent (30%) of the conventional housing units for sale within the $85,000 to $140,000 price range and thirty percent (30%) within the $140,000 to $175,000 price range (1987 dollars).

For the remainder of the residential units, Petitioner proposes to participate in affordable housing programs in consultation with the City and County of Honolulu; Department of Housing and Community Development and/or the State Housing and Finance Development Corporation.

35. Petitioner proposes to sell the residential units to residents of Hawaii in fee simple. The leisure village residential units would be targeted for Oahu residents age 55 or older at time of sale.

Commercial and Industrial Development

36. Petitioner proposes a 5-acre neighborhood shopping center to be located within the retirement/leisure community and a 100-acre commercial/industrial mixed use area to be located in two separate areas within the conventional housing community.

One of the two commercial/industrial mix areas, consisting of about 90 acres located off Interstate Highway H-2, will contain a wide variety of retail and commercial
service establishments, professional and technical business activities ranging from corporate offices to high technology businesses and other appropriate clean, light industrial uses, and a community-scaled shopping center.

The other 10-acre commercial/industrial mix area is planned to accommodate a mix of food services, retail shops, and art and craft activities convenient to the proposed retirement community.

The Trustees of the Bernice Pauahi Bishop Estate would develop and lease the commercial and light industrial areas.

**Open Space and Recreational Development**

37. Petitioner proposes approximately 30% of the Property to be used for open space and recreation uses including two golf courses. One of the golf courses will be located in the retirement community. Public and private parks will be provided in accordance with park dedication requirements of the City and County of Honolulu.

**Access and Circulation**

38. Petitioner proposes to provide access to the Property by an interchange on Interstate Highway H-2 at the Mililani Memorial Road overpass and in the downtown direction through on and off ramps at the Waiawa Interchange. Circulation within the project will consist of a parkway system providing direct access to the commercial, commercial/industrial mix, and various recreational facilities areas and secondary streets for access to the residential areas.
Petitioner also proposes a system of bicycle and walking paths. Further, design considerations will take into account an internal transit system including convenient connections to regional mass transit systems existing or planned for the future.

Development Timeframe and Costs

39. Petitioner proposes to develop the Property over a twelve year period as follows:

a. Development in the first 5 years will involve 279 acres for residential use (129 acres conventional and 150 acres leisure village) and 45 acres for commercial/industrial use. In addition, work on the two golf courses consisting of 193 acres would begin together with construction of roadways and other improvements on additional land. Construction is projected to begin in 1990.

b. Development in the second 5 year period will involve an additional 474 acres for residential use (300 acres conventional and 174 acres leisure village) and 70 acres for commercial/light industrial use.

c. Development thereafter will involve 71 acres for completion of the residential uses within the proposed leisure village.

40. Petitioner estimates the cost for on-site development of the proposed project is $284,000,000. Of this amount, on-site infrastructure costs are estimated to be $10,254,000.
Offsite costs are estimated to be $50,000,000 to $55,000,000. In addition, the estimated cost for design and construction of the potable water system is approximately $10,254,000.

Residential, commercial, and golf course areas are projected to cost $273,746,000.

**PETITIONERS' FINANCIAL CAPABILITY TO UNDERTAKE THE PROPOSED DEVELOPMENT**

41. Gentry Pacific, Ltd. and its corporate subsidiaries as of March 31, 1987 had assets of $83,880,392.00 and liabilities of $67,361,054.00 which means a net equity of $16,519,338.00. Petitioner has been in the business of developing residential homes on Oahu for approximately 20 years.

**STATE AND COUNTY LAND PLANS AND PROGRAMS**

42. The Property is currently designated in the State Land Use Agricultural District as reflected on Land Use District Boundary Map O-9, Waipahu.

43. The City and County of Honolulu's Central Oahu Development Plan (DP) designates approximately ninety percent (90%) or 1,255 acres of the Property as Agriculture. Three percent (3%), or fifty (50) acres is designated Residential; about six percent (6%) or ninety (90) acres is designated Commercial/Industrial.

With respect to the City and County of Honolulu's General Plan residential population guideline for Central Oahu, population from existing and proposed residential developments
will attain current population ceiling guidelines of the General Plan. An amendment to the General Plan's population guidelines is necessary in order to permit the additional population increase from the proposed Waiaua residential community.

44. The Property is currently zoned Ag-1, Restricted Agriculture. Petitioner proposes to seek appropriate rezoning upon amendment of the General Plan and Development Plan.

45. The Property is not within the Special Management Area of the City and County of Honolulu.

NEED FOR THE PROPOSED DEVELOPMENT

46. Petitioner's housing marketability report prepared in 1985 by Wesley H. Hillendahl, Consulting Economist, indicates that approximately 400,500 housing units will be needed by the year 2005. This projection is based on the State Department of Business and Economic Development's (DBED) M-F population forecast for Oahu and the increasing trend to smaller household sizes.

The City and County of Honolulu Department of General Planning estimates a housing unit inventory of 276,500 in 1986. Thus 124,000 units will have to be added to inventory in the next 20 years. In addition, the Hillendahl study estimates that the number of new units will be 20,000 higher to provide for replacement of the existing inventory.

The City and County of Honolulu Department of General Planning estimates a housing unit supply of 338,750 in the year
2005. This estimate, which includes assumptions about densities and the phasing of redevelopments and major new projects, indicates a potential shortfall of 61,750 units or approximately 3,100 units per year over the next 20 years.

47. Petitioner proposes to provide 3,900 units of conventional housing over 10 years and 4,000 units in the leisure village over 12 years.

**Retirement/Leisure Community**

48. Petitioner's market study for the retirement/leisure community was prepared by Economic Research Associates ("ERA"). The study estimates a strong demand for approximately 275 units per year based on sales prices ranging between $120,000 and $180,000 per unit. However, Petitioner proposes a wider range of units, including studio units at less than $70,000, and custom homes at prices above $180,000 per unit. Such wider range appears to indicate an absorption rate of 375 units per year. The 375 unit annual absorption rate is within the 300 to 600 unit per year range identified in the ERA study.

**Commercial/Industrial Areas**

49. Petitioner's market study estimated the demand for commercial/industrial uses based on the experience of Mililani Town and on general rule of thumb estimates of the internal demand of commercial space. The market study estimates an internal demand for 275,000 sq. ft. of commercial space within the Property. Furthermore, given the location of
the commercial/industrial area in Waialua with access to H-2 Interstate, the site may attract shoppers from the entire region.

50. The market study also indicated that eating and drinking establishments showed one of the strongest growth records relative to other retail groups.

Petitioner proposes to develop a food center complex similar to the Ward Centre/Ward Warehouse concept to meet the need for retail space for restaurants. Demand for food service will provide the basic draw for the center and it is anticipated that restaurants will compose between 40-50% of the leasable space. The balance of retail space will be leased to various retail shops.

51. Petitioner proposes a 4/4-acre business park/light industrial development as part of the overall development plan. The market study estimates a need for 70 acres of industrial land based upon the following assumptions:

   a. Campbell Industrial Park will continue to provide approximately 45 acres a year of industrial land (historic absorption).

   b. Twenty-eight (28) acres per year of other industrial space will be absorbed.

   c. The High Tech Park at Mililani will attract businesses that would not otherwise be competing for existing industrial space.
d. The proposed Sand Island industrial park would provide a minimum of "new space." In the event construction activities force relocation of existing businesses, a temporary increase in demand may be created.

Therefore, Petitioner concludes that there are 175 acres of new industrial space being planned which results in the availability of a five- to six-year inventory.

52. The existing Gentry Business Park at Gentry Waipio has been absorbed at an average rate of 6.5 acres per year. Based upon this experience, the study projects a seven acre per year absorption rate for the industrial space proposed on the Property.

IMPACT UPON RESOURCES OF THE AREA

Water Resources

53. The proposed project is situated within the Koolau Subarea of the State Department of Land and Natural Resources (DLNR) Pearl Harbor Groundwater Control Area. This aquifer is a major regional source for all of southern Oahu, as well as portions of Honolulu and Waianae, areas to which some of the daily water drawn is transported and consumed.

54. The Koolau subarea has an established sustainable yield of 200 million MGD. The DLNR states that present authorized water withdrawals total 199.91 MGD. Current efforts by DLNR to re-evaluate the sustainable yield of the Pearl Harbor Groundwater Control Area may result in an alteration of the sustainable yield.
55. The Waiawa Shaft is the primary source of potable water for military and civilian users in the Pearl Harbor area. It is a critical facility which is required for the operation of the Pearl Harbor Naval Complex and Hickam Air Force Base and serves approximately 61,000 people. There are no other alternatives in the event the shaft is shut off or contaminated.

56. The Waiawa Shaft entrance is situated adjacent to the Property, along the western wall of Waiawa Stream. The Waiawa Shaft is an inclined shaft. Infiltration galleries or other tunnels extend down toward the Property to the surface of the groundwater aquifer as well as deeper into the lens.

57. The U.S. Geological Survey report entitled "The Effects of Pumpage, Irrigation Return, and Regional Groundwater Flow on the Water Quality at Waiawa Water Tunnel, Oahu, Hawaii", shows that the Property is a vulnerable area because of the potential for groundwater contamination. A tracer chloride compound, which was applied by irrigating sugar fields on the Property with brackish water, was later found in the groundwater aquifer. Also when cultivation of the fields above the Waiawa Shaft was phased out by the Oahu Sugar Company between 1980 and 1982, chloride levels in the Waiawa Shaft dropped from over 225 parts per million to 60 parts per million.

58. DBED believes urban development can contribute to groundwater contamination in a number of ways. Industrial solvents or gasoline leaking from underground storage tanks in
an industrial or commercial area may move into the water table. In addition, household applications of pesticides or biocides and seepage through the soil can contaminate the groundwater resource. Even golf courses can cause some contamination problems by the application of fertilizers and pesticides.

59. Programs to deal with groundwater contaminant removal can be costly and take several years to implement. Assuming that contaminant(s) of the water supply can be physically removed to safe levels by treatment, construction of a treatment plant at Waiawa could take up to three years. Construction costs approximately $8.4 million dollars accompanied by a yearly maintenance cost of $1 million dollars.

60. Petitioner admits that potable water drawn from the Waiawa Shaft is vulnerable to contamination. Petitioner failed to demonstrate that pesticides, compounds, or contaminants associated with an urban setting will not reach the groundwater and pose a threat to the environment and groundwater supplies.

61. Petitioner's geology and hydrology consultant indicated that should the proposed project be allowed to proceed, and groundwater contamination does occur, locating the exact source of the contaminant may be difficult to determine.

62. The U.S. Navy believes that the reclassification of the Property at this time would be premature until a
determination is made that residential development will not contaminate the waters drawn from the Waiawa Shaft.

63. The U.S. Navy has awarded a contract to the University of Hawaii Water Resources Research Center to assess the potential for groundwater contamination due to residential development adjacent to and overlaying the Waiawa Shaft. The study will take 2 years to complete.

64. The State Department of Health ("DOH") recommends a requirement that no development occur on the Property until studies show that groundwater contamination can be properly managed or mitigated.

Agricultural Resources

65. The Property was previously used for sugarcane cultivation by the Oahu Sugar Company, and as pasture for cattle grazing.

In 1982, the cane fields were fallowed by the Oahu Sugar Company when the operations became economically unfeasible due to high costs of pumping the irrigation water, high overall production cost, and distance of the Waiawa fields from the sugar mill.

66. Petitioner's agricultural consultant concluded that the Property has the agronomic potential to be productive agricultural lands. However, due to market parameters, the declining importance of the sugar industry, and the availability of similar lands on Oahu, the placement of the subject lands in an urban use will not have a significant
impact on the agricultural sector of Honolulu County or the State. Lands of similar quality and economic potential are currently lying fallow and there are sufficient lands available to meet current and projected future agricultural needs.

Air Quality

67. Petitioner anticipates that significant short-term direct air quality impacts are expected to consist of dust emissions during the site preparation and construction phase of the project. Petitioner's air quality study indicates that fugitive dust problems can be substantially mitigated by completing and paving roadways and parking areas early in the development.

68. Petitioner's traffic consultant projects that the proposed development will generate about 4,000 total vehicles per hour exiting and entering the Property during peak periods. Petitioner's air quality study on peak hour carbon monoxide indicates that State Air Quality Standards are already exceeded at two of the three sites analyzed—at the intersection of Waipahu Street and Kamehameha Highway (site 2), and along the H-1 Freeway between Wahiawa and Halawa Interchanges (site 3). Should the proposed development be permitted, State Ambient Air Quality Standards will be exceeded under worst case traffic and meteorological dispersion conditions.

69. Petitioner has represented it will comply with governmental rules and regulations as it relates to air quality.
Noise

70. Petitioner's noise consultant states that the existing traffic noise levels along the H-2 Freeway in the area of the proposed project is in the "Significant Exposure, Normally Unacceptable" category. Traffic noise measures 70 Ldn along the H-2 right-of-way. Interior streets are expected to experience noise levels below 67 Ldn at 50-foot setback distances from the roadway center line. Petitioner's noise expert suggests several noise mitigating measures, such as buffer zones, sound attenuation berms or walls, sound attenuation windows in upper-story houses, and air conditioning within residences.

71. Petitioner represents it will follow the recommendations of its noise consultant.

Archaeological/Historical Resources

72. Petitioner's archaeology expert conducted a walk-through reconnaissance survey of the entire Property. Neither prehistoric nor historic remains were found on the ridge areas, which had been intensively cultivated. A more intensive walk-through survey and some excavation were conducted in the gulches and along the sides of the gulches. No significant remains were found.

73. Petitioner's archaeologist recommends that if any cultural remains are discovered during construction or grading, an archaeologist should be contacted, preferably from the State Historic Preservation Office.
Flora and Fauna

74. Petitioner's consultant conducted a botanical reconnaissance and assessment of terrestrial vertebrate animals on the Property and found the area has been greatly modified by agricultural activity. The vegetation is composed almost exclusively of non-native or introduced species. The native species found in the Property are also found in similar habitats throughout the islands.

75. Petitioner believes the proposed project is expected to have no adverse effect on any endemic Hawaiian animal or ecosystem in the Property.

ADEQUACY OF PUBLIC SERVICES AND FACILITIES

Roadway and Highway Services and Facilities

76. Existing roads within the Property are primarily for agricultural purposes and also provide access to the Waialua Correctional Facility.

77. Petitioner's traffic consultant prepared a traffic impact assessment report for the proposed project. The report projects the proposed project to generate 91,000 total trip ends per day. During the morning peak hour, 2,633 vehicles per hour (vph) are expected to exit the site and 1,312 vph are expected to enter. During the afternoon peak hour, 2,746 vph are expected to enter the site and 1,849 vph are expected to exit. The total traffic demand will increase in the event that the units in the leisure village/retirement
community were occupied by persons who are similar to occupants in the conventional housing units.

78. The Property will have access from the highway system at three locations: The Waipio Interchange, Kamehameha Highway at Waipahu Street, and Waihona Street.

Petitioner's traffic consultant, Parsons Brinkerhoff Quade & Douglas, Inc., recommended the following improvements to traffic circulation for the area:

a. A two-lane loop ramp should be provided in the Waianae-Wahiawa (northwest) quadrant of the proposed Waipio Interchange to serve traffic exiting the Waialua Ridge area and entering H-2 in the southbound direction.

b. A two-lane off-ramp should be provided from northbound H-2 to Ka Uka Boulevard at the Waipio Interchange.

c. The existing traffic signal at the Waipahu Street and Kamehameha Highway intersection should be upgraded to operate as a fully actuated, eight-phase signal.

d. A transportation terminal should be developed, either within the project site or in nearby developed areas, to encourage increased use of high occupancy vehicles.

79. The proposed Waipio Interchange will be located in the area of the present Mililani Cemetery Road overpass over H-2. Petitioner proposes to connect the interchange to Kamehameha Highway and to the Property by a multilane extension of Ka Uka Boulevard.
80. Petitioner proposes to adopt the recommendations of its traffic consultant as modified by the State Department of Transportation as follows:

If Federal or other governmental programs and/or funds are not available, the Petitioner shall provide the necessary funds to construct any or all of the following roadway improvements as determined by the State Department of Transportation:

a. the loop ramp on the northwest quadrant of the Waipio Interchange and an additional off-ramp lane from the Honolulu direction.

b. the extension of Ka Uka Boulevard over Panakauahi Gulch to Waiawa Ridge.

c. the extension of Waipahu Street and the improvement of the Waipahu Street, Kamehameha Highway intersection.

d. the improvement of the Waihona Street, Kamehameha Highway intersection.

These improvements shall be implemented on a schedule acceptable to and approved by the State Department of Transportation. The schedule may be revised subject to monitoring and the projected impact of the proposed retirement community.

81. Roadways within the Property will be built by Petitioner and dedicated to the City and County of Honolulu.
82. The State Department of Transportation points out that the traffic projections may double and the impacts to the highway system may be much greater than anticipated if Petitioner does not develop the retirement community, as anticipated, since the trip generation characteristics of a retirement community differs from the trip generation characteristics of a conventional residential community.

Water Service

83. Water requirements for the proposed project are estimated at 4.7 million gallons per day (MGD). This includes 1.45 MGD for irrigation of the golf courses.

84. Petitioner proposes to meet the project's water needs by developing on-site deep wells, reservoirs, and transmission lines.

85. Petitioner, together with the Board of Water Supply, will be required to obtain an allocation (permitted use) of water from the State Department of Land and Natural Resources (DLNR).

Sewage Treatment and Disposal

86. The proposed project is expected to generate approximately 3.1 MGD of sewage effluent. Petitioner proposes to fund and construct the on-site underground collection pipe system and the 2-mile long off-site trunk sewer to the municipal wastewater pump stations located on Lower Depot Road.

87. The City's Department of Public Works states that the connection to the existing sewer system will not be allowed
until the Honouliuli Wastewater Treatment Plant is expanded. Expansion is tentatively scheduled for 1993.

88. Petitioner proposes to construct a sewer line to the Pearl City Pumping Station which will pump the wastewater to the Honouliuli Wastewater Treatment Plant. Petitioner believes the present capacity of the treatment plant, together with the planned expansion of the plant, will provide sufficient capacity for the proposed project.

**Solid Waste Disposal**

89. Petitioner states that the project will be served by public and private refuse collection services and will require large increases to the number of refuse collection crews and trucks. Refuse will be disposed at the Waipahu Incinerators.

**Drainage Systems**

90. Surface runoff from the Property flows into existing natural ditches and streams which converge into Waiawa Stream and ultimately flows into Pearl Harbor.

91. The U.S. Department of the Navy ("Navy") expressed concern that siltation results in poorer water quality and more frequent dredging requirements. The Navy has suggested that all development construction be monitored to prevent runoff into streams that enter into Pearl Harbor.

92. To mitigate impacts from the proposed development, Petitioner proposes the use of retention basins which will be built into the golf courses to retain peak storm
water. The retention basins will release excess water on a controlled basis to reduce the effects of stormwater runoff.

**Schools**

93. The proposed development includes a provision for a public school site. Petitioner will provide a site as required by the State Department of Education.

**Police and Fire Protection**

94. Police and fire protection will be provided by the City and County of Honolulu from existing facilities provided the necessary resources are made available to the Police Department.

95. The Honolulu Fire Department recommends a fire station be located on-site. Petitioner and the Fire Department are currently considering the recommendation.

**Electrical Utility Services**

96. Hawaiian Electric Company and Hawaiian Telephone Company will provide electrical and telephone service, respectively, to the Property. Petitioner will provide improvements needed to connect the electrical and telephone systems as well as the electrical and telephone systems within the Property.

**Park and Recreation Services and Facilities**

97. Petitioner proposes to provide recreational facilities within the project to accommodate the needs of its projected population. Petitioner intends to comply with the City's Park Dedication Ordinance.
Commitment of State Funds and Resources

98. Petitioner believes the project will produce sufficient revenue to off-set both the State of Hawaii and City and County of Honolulu debt service for those facilities built by the respective governments and the associated maintenance costs.

CONFORMANCE TO URBAN DISTRICT STANDARDS

99. The Property meets the standards applicable in establishing boundaries of the Urban District set forth in Section 15-15-18 of the Commission's Rules as follows:

a. The Property is in reasonable proximity to centers of trading and will create new employment opportunities. The Property is in proximity to Pearl Harbor, the Honolulu International Airport, Pearl City industrial areas, Gentry Business Park, Waipahu, Schofield Barracks, Wahiawa and within commuting distance of downtown Honolulu.

b. Petitioner has established the need for additional housing. Petitioner has demonstrated its capabilities to financially undertake the proposed project.

c. The Property is in proximity to existing basic services such as police and fire protection, sewers and sanitation, transportation, water and schools. In addition, Petitioner proposes to improve these services where needed.

d. The Property is of satisfactory topography with the sloping areas of the Property being committed to golf courses and other open space elements. The Property is
reasonably free of flooding, tsunami, unstable soil and other adverse environmental effects.

e. No native or endangered species habitats have been found to exist on the Property.

f. No known valued cultural, historic and scenic resources will be affected by the proposed development.

g. The Property is not essential to maintain agriculture on the Island of Oahu or in the State of Hawaii. Despite the loss of the Property from land classified as prime agricultural land, the Property has not been economically profitable in sugarcane cultivation in the past.

CONFORMANCE WITH THE HAWAII STATE PLAN

100. Based on the findings as previously stated, the proposed development is consistent with the objectives, policies or priorities of the Hawaii State Plan. The proposed development:

a. Provides greater opportunities for Hawaii's people to secure reasonably-priced, safe, sanitary livable homes located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals (Section 226-19(a)(1), HRS).

b. Stimulates and promotes feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households (Section 226-20(b)(2)).

c. Promotes design and location of housing developments taking into account the physical setting,
accessibility to public facilities and services, and other concerns of existing communities and surrounding areas (Section 226-20(b)(5)).

d. Encourages urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures (Section 226-104(c)(2), HRS).

101. Given the shortage of housing on Oahu, the proposed development is consistent with the State Housing Functional Plan.

INCREMENTAL DISTRICTING

102. Pursuant to Section 15-15-78 of the Commission's Rules, the Commission finds that although full urban development of the Property cannot substantially be completed within 5 years after the date of final county zoning approval, approval of the request to reclassify the entire Property to the Urban District to provide affordable and conventional housing is appropriate at this time.

RULING ON PROPOSED FINDINGS OF FACT

Any of the proposed findings of fact submitted by any of the parties to this proceedings 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 Hawaii Administrative Rules, the Commission
finds upon a preponderance of evidence that the reclassification of the Property consisting of approximately 1,395 acres from the Agricultural into the Urban District at Waiawa, Ewa, Island of Oahu, City and County of Honolulu, subject to the conditions stated in the Order, conforms to the standards for establishing the Urban boundaries, is reasonable and is non-violative of Section 205-2, Hawaii Revised Statutes, and the Hawaii State Plan, as set forth in Chapter 226, Hawaii Revised Statutes, as amended.

ORDER

IT IS HEREBY ORDERED that the Property, consisting of approximately 1,395 acres, being the subject of Docket Number A87-610 by Tom Gentry and Gentry Pacific, Ltd., situated at Waiawa, District of Ewa, Island of Oahu, State of Hawaii, identified as Oahu Tax Map Key Numbers: 9-4-06: portion of 26; 9-6-04: portion of 1 and portion of 16; 9-6-05: portion of 1, portion of 7 and portion of 14, and approximately identified on Exhibit A attached hereto and incorporated by reference herein, for reclassification from the Agricultural District to the Urban District, shall be and hereby is approved subject to the following conditions:

1. A study funded by the U.S. Department of the Navy to review the potential for groundwater contamination resulting from the urbanization of the Property shall be completed prior to any site development and construction unless the Department of Health after consultation with the United States Navy and
after review of the proposed study scope makes a determination that development and construction within a specified area will not cause groundwater contamination to wells in the area. Petitioner shall not proceed with the project until the study shows to the satisfaction of the Department of Health that groundwater contamination will not occur as a result of the proposed project, or until the Department of Health makes a determination that development or partial development may be allowed.

2. Any urban development within the Property shall be subject to further review and subsequent approval by the Department of Health. The Department of Health may require appropriate mitigative measures and conditions relating to the proposed development's impact on the groundwater resources in the area.

3. For the first 1,000 dwelling units which may be constructed on the Property, Petitioner shall provide housing opportunities for low, low-moderate, and moderate income Hawaii residents by offering for sale at least thirty percent (30%) of the units at prices which families with an income range of 80 to 120 percent of Oahu's median income can afford and thirty percent (30%) of the units which families with an income range of 120 to 140 percent of Oahu's median income can afford. This condition may be fulfilled through projects, under such terms as may be mutually agreeable, between Petitioner and the Housing Finance and Development Corporation of the State, or
other appropriate governmental agency. This condition may also be fulfilled, with the approval of the Housing Finance and Development Corporation, through the construction of rental units to be made available at rents which families in the specified income ranges can afford.

4. For the balance of the Property, the affordable housing requirements shall be satisfied in a manner that meets with the approval of the City and County of Honolulu and the State Housing Finance and Development Corporation. Said requirements shall take into consideration affordable on-site or off-site housing units or cash payments that satisfy the then current housing needs, or other necessary or desirable community facilities as determined above.

5. Petitioner shall fund and construct the necessary improvements as determined by the State Department of Transportation which would mitigate impacts from the subject project. These improvements shall be implemented on a schedule acceptable to and approved by the Department of Transportation.

6. Petitioner shall appoint and fund a transportation manager whose function is the formation, use, and continuation of alternative transportation opportunities that would maximize the use of existing and proposed transportation systems. This will include construction and operation of a park and ride facility or other activities to encourage transit use or ridesharing. These activities and
facilities shall be implemented on a schedule acceptable to and approved by the State Department of Transportation.

7. Petitioner shall participate in an air quality monitoring program as specified by the State Department of Health.

8. Petitioner shall immediately stop work and contact the State Historic Preservation Office should any archaeological resources such as artifacts, shell, bone, or charcoal deposits, human burial, rock or coral alignments, pavings or walls be encountered during the project's development.

9. Petitioner shall provide public access to the Conservation District land mauka of the Property.

10. Petitioner shall provide annual reports to the Land Use Commission, the Department of Business and Economic Development and the City and County of Honolulu Department of General Planning in connection with the status of the project and Petitioner's progress in complying with the conditions imposed.
DOCKET NO. A87-610 - TOM GENTRY AND GENTRY-PACIFIC, LTD.

Done at Honolulu, Hawaii, this 17th day of May 1988, per motions on March 29, 1988 and May 11, 1988.

LAND USE COMMISSION
STATE OF HAWAII

By

TEOFILO PHIL TACDIAN
Chairman and Commissioner

FREDERICK P. WHITTEMORE
Vice Chairman and Commissioner

RENTON L. K. NIP
Commissioner

ROBERT S. TAMAYE
Commissioner

SHARON R. HIMEND
Commissioner

TORU SUZUKI
Commissioner

RICHARD B. F. CHOY
Commissioner

LAWRENCE F. CHUN
Commissioner
BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of
TOM GENTRY AND GENTRY-PACIFIC,
LTD.

DOCKET NO. A87-610
TOM GENTRY AND GENTRY
PACIFIC, LTD.

To Amend the Agricultural Land Use
District Boundary into the Urban
Land Use District for Approximately
1,395 Acres at Waiau, Ewa, Oahu,
State of Hawaii, Tax Map Key Nos.:
9-4-06: Portion of 26; 9-6-04:
Portion of 1 and Portion of 16;
and 9-6-05: Portion of 1, Portion
of 7 and Portion of 14

CERTIFICATE OF SERVICE

I hereby certify that a copy of the 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. UVELING, Director
Department of Business and Economic Development
State of Hawaii
250 South King Street
Honolulu, Hawaii 96813

DONALD A. CLEGG, Chief Planning Officer
cert.
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

ALAN M. OKAMOTO, ESQ., Attorney for Petitioner
Cert.
Nakamoto, Yoshioka & Okamoto
187 Kapiolani street
Hilo, Hawaii 96720

Dated: Honolulu, Hawaii, this 17th day of May, 1988.

ESTHER UDIA, Executive Officer
DOCKET NO. A87-610 - TOM GENTRY & GENTRY-PACIFIC, LTD.

A copy of the Land Use Commission's Findings of Fact, Conclusions of Law, and Decision and Order was served upon the following by regular mail on May 17, 1988.

SIDNEY FUKE, Planning Consultant
100 Pauahi Street, Suite 212
Hilo, Hawaii 96720

JAN N. SULLIVAN, ESQ.
Takeyama & Sullivan
1188 Bishop Street, Suite 3404
Honolulu, HI 96813