

# **THE REVISED ORDINANCES OF HONOLULU 2021**

**Comprising the Ordinances of the  
CITY AND COUNTY OF HONOLULU  
Ordinance No. 17-53 through Ordinance No. 20-35  
October 7, 2020**

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## **Volume III**

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## **Honolulu - Land Use**



## ARTICLE 1: DEVELOPMENT PLAN COMMON PROVISIONS \*

### **\*Editor's note:**

*The common provisions only apply to the Northwest Hawaiian Islands Development plan. They do not apply to development plans on Oahu.*

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### **§ 24-1.1 Definitions.**

For the purposes of this chapter, the following definitions apply unless the context clearly indicates or requires a different meaning.

***Annual Amendment Review.*** The process for considering significant amendments to the development plans.

***CIP.*** The capital improvements program and budget report of the City and County of Honolulu.

***City.*** The body politic and corporate by the name of “City and County of Honolulu”.

***City Council.*** The city council of the City and County of Honolulu (“council”).

***Charter.*** The Revised Charter of the City and County of Honolulu, 1973, as amended.

***Department of Planning and Permitting.*** The department of land utilization (“DPP”) of the City and County of Honolulu.

***Development Plan Annual Report.*** The annual report on the current status of land use and other data pertaining to the development plans, as required by Charter § 6-1503.



***Director of Planning and Permitting.*** The administrative head of the department of planning and permitting.

***Evaluation of Social Impact.*** A form of analysis that involves comparing current living conditions in an area that will be affected by a proposed development project with the living conditions that are expected to occur as a result of the new development project.

***General Plan.*** The general plan of the City and County of Honolulu as defined by Charter § 6-1508.

***LUO.*** The land use ordinance of the City and County of Honolulu, Chapter 21, as amended.

***Planning Commission.*** The planning commission of the City and County of Honolulu.

***Social Impact.*** Any positive or negative change in people's living conditions that occurs in conjunction with new development and that:

(1) Is in addition to all other current changes caused by other factors; and

(2) Is regarded as significant by those people who are affected.

(Sec. 32-1.1, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.1) (Am. Ords. 90-41, 94-26)

## **§ 24-1.2 Implementation.**

- (a) The performance of prescribed powers, duties, and functions by all city agencies shall conform to and implement the policies and provisions of these common provisions and each development plan. Pursuant to Charter § 6-1511.3, public improvement projects, and subdivision and zoning ordinances shall be consistent with the development plan for that area; provided that development plan amendments and zoning map amendments may be processed concurrently. In case of a conflict between any federal aid projects and the general plan or the development plans, the council, after public hearings, may set aside the general plan or development plans to the extent that such conflict prevents the obtaining or the granting of federal aid on any such project or the prosecution of the work thereunder.

Publicly funded facilities are required to be shown on the public facilities map when construction and land acquisition funds are budgeted. Designation on the map is not required for the budgeting of planning and engineering funds.

- (b) Notwithstanding the land use map designations and provisions of each development plan, existing zoning ordinances applicable to a development plan area shall continue to regulate the use of land within demarcated zones and set detailed standards for the height, bulk, size, and location of buildings; provided that where the land use map designations or provisions of a development plan are more restrictive than applicable zoning ordinances, the department of planning and permitting shall, within 90 days of the date of approval or amendment of the development plan, prepare and submit to the planning commission such ordinances as are necessary to bring applicable zoning ordinances into conformance with the development plan. The planning commission shall forward its recommendations to the council within 45 days.



- (c) In those instances in which a development plan is more restrictive than the existing zoning ordinances applicable to the development plan area or where public facilities are inadequate to service the types of land uses permitted under the applicable zoning ordinances, the department of planning and permitting shall, within 30 days of the date of approval or amendment of the development plan, prepare and submit to the council for its consideration appropriate interim development controls to regulate development until the zoning can be brought into conformance with the development plan or until adequate service levels can be achieved.
- (d) No amendment to a development plan for the purpose of changing the land use classification of any specific property or the nature of any designated public facility improvement shall be adopted unless the council finds that such amendment will be consistent with the common and special provisions of the development plan and the objectives and policies of the general plan. In processing any proposed amendment to a development plan, the department of planning and permitting shall review the objectives and policies of the general plan and the provisions of the development plan, and shall report through the planning commission to the council its comments regarding how the proposed amendment is consistent with or how it conflicts with the development plan and the general plan. Any questions of interpretation regarding the consistency of the proposed amendment with the provisions of this development plan and the objectives and policies of the general plan shall be resolved by the council.
- (e) No amendment to the text of these common provisions or the special provisions of each development plan shall be adopted unless the council finds that such amendment will be consistent with the objectives and policies of the general plan. In processing any such amendments to these common provisions or the text of a development plan, the department of planning and permitting shall review all of the objectives and policies of the general plan and other development plan provisions and shall report through the planning commission to the council its comments regarding the consistency or any conflicts of the proposed amendment with the general plan and other development plan provisions. Any questions of interpretation regarding the consistency of the proposed amendment with other development plan provisions or the objective and policies of the general plan shall be resolved by the council.
- (f) In determining whether any action relating to a proposed development is consistent with a development plan, the responsible agency shall take into consideration the following factors:
  - (1) Whether the development is consistent with the land use map or with any applicable zoning provisions. The land use map is intended to suggest the overall character of the area depicted rather than precise zoning boundaries. In preparing proposed amendments to zoning district boundaries, the department of planning and permitting shall take into account the designation shown on the land use map, the character of existing land uses, and zoning and the compatibility of neighboring land uses.
  - (2) Whether the development is consistent with the general height controls set forth in a development plan. The general height controls are intended to establish a policy for the general character of the area by setting general height limits for the area. They are not intended to supplant specific zoning standards which may set lower height limits. Precise height limits shall be included by the department of planning and permitting in proposed zoning ordinances. In preparing proposed zoning height limits, the department of planning and permitting shall take into consideration all applicable urban design policies and controls, and the nature of existing land uses.
  - (3) Whether the development is consistent with population objective C of the general plan, to establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony, and its related policies.



- (4) Whether consideration has been given to the expected impact of the development upon the living conditions of residents of the area in light of local area issues, and the social impact factors set forth in § 24-1.10 of these common provisions.
- (5) Whether the place and time at which the development is proposed to be undertaken is consistent with the planned location and sequence for constructing public facilities within each development plan area as determined pursuant to § 24-1.9 of these common provisions and the section relating to development priorities of each development plan and as depicted on the public facilities map of each development plan.
- (g) No application for any of the following types of actions shall be approved unless such approval is accompanied by specific findings with respect to the factors set forth in § 24-1.2(f):
  - (1) Change in zoning for the purpose of changing the zoning classification of specific property;
  - (2) Plan review use under the LUO;
  - (3) Funding for land acquisition or construction of a public improvement or project to be included for the first time in the six-year capital improvement program.
- (h) *Conflict between text and maps.* In case of any conflict between the text of these common provisions or the special provisions of each development plan and either of the maps attached to each development plan, the provisions of the text shall control.
- (i) The development plan land use and public facilities maps are to be interpreted flexibly except where specific requirements are established in the text.
  - (1) *Development plan land use maps.* Changes in permitted land uses requiring the adoption of an ordinance shall not require a development plan amendment and may be processed directly as a zoning map change, when they meet the following criteria:
    - (A) The site involves a rezoning of:
      - (i) Ten acres or less to a preservation or agricultural district;
      - (ii) Ten acres or less to a residential or country district; or
      - (iii) Five acres or less to any other zoning district.
    - (B) The site abuts lands which are similarly designated and zoned; and
    - (C) The change involves no major social, environmental, or policy impacts, nor does it involve cumulative impacts resulting from separate applications in the same area.

When a street is abandoned by the city by city council resolution, the development plan land use map shall automatically reflect a land use designation consistent with the underlying zoning as determined by the director of planning and permitting in accordance with the LUO.



In addition, for master planned development projects which have received development plan approval, minor boundary adjustments may be processed directly as a zoning map change; provided that the proportion of land uses, the number of residential units, acreage, and the design integrity of the approved plan remain substantially the same.

For purposes of this subsection, master planned development projects are the relatively large development projects which combine a variety of land use categories, commonly residential, apartment, commercial, parks, and public and quasi-public uses, into an integrated development proposal.

When a zone change application is filed in accordance with this section, the director of planning and permitting shall review and certify the request with respect to its consistency with the policies and objectives of the general plan and development plan.

When such zoning map changes are implemented, the development plan land use map shall be automatically changed to reflect the new zoning.

Questions of interpretation as to the degree of impact of a change shall be resolved by the city council.

- (2) *Development plan public facilities maps.* The development plan public facilities maps show general locations of proposed facilities. Where linear facilities are depicted, they represent approximate alignments and conceptual solutions to facility needs. Linear facilities include sewer lines, water lines and tunnels, drainage lines and channels, regional electrical transmission lines (above 46 kV), public thoroughfares, highways, streets and bikeways. Changes in alignment which do not significantly alter the design solution, change capacity, impact on surrounding land uses, or affect the natural environment, may be made without an amendment to an existing facility symbol. Project boundaries depicted on the public facilities maps indicate approximate locations and shall be interpreted flexibly to allow reasonable implementation. The approximate location of all major planned public facilities is shown on the development plan public facilities map. However, where time is of the essence to protect public health, safety, or property, or to prevent the loss of State or federal funds, funding for capital improvement projects may be initiated and appropriated without amending the development plan public facilities map. Major facilities generally include those which:

- (A) Significantly increase system capacity;
- (B) Expand service areas;
- (C) Change the function of an existing facility;
- (D) Involve replacement of or renovations to existing facilities which would permit significant new development or redevelopment;
- (E) Have a significant impact on surrounding land uses; or
- (F) Cost over \$1,000,000 for capital improvements; however, improvement districts, the addition of equipment, and the repair, replacement, renovation, or modification of existing facilities which would not involve any significant expansion of existing facilities shall not be deemed a major public facility even if the cost exceeds \$1,000,000, so long as subparagraphs (A) through (E) immediately above are not affected.



The director of planning and permitting may administratively modify the map to change the symbol for the timing or location or alignment of a project when the city council appropriates the funds to implement the project.

Any question of interpretation shall be resolved by the city council.

- (3) Changes in the development plan land use and public facilities maps for the following purposes, when directed by the department of planning and permitting, do not require a development plan amendment:

- (A) Deleting from the public facilities map those projects for which construction has been completed;
- (B) Deleting from the public facilities map those parks for which land has been acquired; or
- (C) Depicting completed public facilities, or park land acquisition on the land use map.

Before such changes, responsible agencies shall submit a letter of project completion to inform PD and the city council that projects have been completed.

(Sec. 32-1.2, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.2) (Am. Ords. 89-9, 90-5, 90-41, 90-89, 92-59, 93-07, 93-11, 94-26)

### **§ 24-1.3 Land use categories.**

The following land use categories are established for this development plan.

- (a) *Residential.* Residential areas are for single-family detached residences, duplexes, and other types of low-density cluster or common-wall housing apartments.
- (b) *Low-density apartment.* Except as otherwise specified in the special provisions of each development plan, low-density apartment areas are for low-rise, low-density multi-family residential structures.
- (c) *Medium-density apartment.* Except as otherwise specified in the special provisions of each development plan, medium-density apartment areas are for mid-rise, medium-density multi-family residential structures.
- (d) *High-density apartment.* Except as otherwise specified in the special provisions of each development plan, high-density apartment areas are for high-rise, high-density multi-family residential structures.
- (e) *Commercial.* Except as otherwise specified in the special provisions of each development plan, commercial areas are principally for business or commercial activities, in contrast to other types of economic activities. Limited accessory uses directly related to the principal uses may also be permitted, but only on the same lot and not as a principal use.
- (f) *Industrial.* Except as otherwise specified in the special provisions of each development plan, industrial areas are principally for processing, construction, manufacturing, transportation, wholesaling, storage and similar economic activities. Accessory or supporting activities that directly enhance the viability of the principal activities may also be permitted.



- (g) *Resort.* Except as otherwise specified in the special provisions of each development plan, resort areas provide a full range of facilities and services for visitors. The term “visitor unit” as used in the special provisions includes hotel rooms and resort condominiums, as well as other accommodations which are located in resort designated areas and reserved for visitor use. The principal use in resort areas shall be hotels and apartments. Accessory or supporting uses which enhance the viability of the principal use may also be permitted.
- (h) *Agricultural.* Agricultural areas are those areas suitable for crop growing, grazing and the raising of livestock, flower gardening, nurseries or orchards, aquaculture, or similar activities. This classification also includes areas surrounded by or contiguous to such lands but not well suited to agricultural or accessory activities due to topography, soils, or similar constraints, and areas otherwise identified by the city as implementing related general plan objectives and policies. In such areas, uses complementary to agricultural uses may be permitted.
- (i) *Public and quasi-public.* Public and quasi-public areas include those areas designated for general governmental activities; schools, colleges, and universities; airports, harbors, bus yards and other terminals; major health care facilities; major utility plants and substations; landfill sites, corporation yards, and maintenance yards of public agencies; religious, social, and social service institutions; and other public services.
- (j) *Parks and recreation.* Parks and recreation areas include all public parks and recreational facilities, including beach parks, playgrounds, playfields, district parks, botanical gardens, zoos, golf courses, and pedestrian malls as well as privately owned or operated, or both, park and recreational facilities which are provided as integral parts of developments.
- (k) *Preservation.* Preservation areas include the following types of land:
  - (1) Lands necessary for protecting watersheds, water resources, and water supplies;
  - (2) Lands necessary for the conservation, preservation, and enhancement of sites with scenic, historic, archaeologic, or ecologic significance;
  - (3) Lands necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish, and wildlife, for forestry and other related activities to these uses;
  - (4) Lands having an elevation below the maximum inland line of the zone of wave action; and marine waters, fish ponds, and tide pools of Oahu unless otherwise designated on the development plan land use map;
  - (5) All offshore and outlying islands of Oahu unless otherwise classified;
  - (6) Lands with topography, soils, climate, or other related environmental factors that may not be normally adaptable or presently needed for urban, rural, or agricultural use;
  - (7) Lands with general slopes of 20 percent or more which provide for open space amenities or scenic values, or both;
  - (8) Lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the State or federal government, and lands necessary to the protection of the health,



safety, and welfare of the public by reason of soil instability or the lands' susceptibility to landslides or inundation, or both, by tsunami and flooding;

- (9) Lands used for national, State, or city parks; or
  - (10) Lands suitable for growing of commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when such facilities are compatible with the natural physical environment.
  - (l) *Military.* Military areas are enclosed by a dashed line and include all lands used for military and military support purposes. Other land uses shown within the dashed line reflect the detailed plans of the military for lands under their control. Such uses are indicated for informational purposes only and do not alter the development plan land use policy designation of military for these lands. Upon its release from the federal government, land designated military must receive a new appropriate land use designation through the development plan amendment process.
  - (m) *Residential emphasis mixed-use.* Housing shall be the predominant type of development. Commercial uses may be limited to those which generally serve residents in the surrounding community. Commercial uses may be located on the first two floors within structures and, where appropriate, shall be clustered to encourage convenient pedestrian shopping activities.
  - (n) *Commercial emphasis mixed use.* Commercial uses may be the predominant type of development. Where appropriate, the ground floor may be designed primarily for commercial uses which support establishing a new or maintaining an existing pedestrian-oriented environment. Housing may also be provided.
  - (o) *Commercial-industrial emphasis mixed use.* Commercial and light industrial uses may be the predominant type of development. Where appropriate, the ground floor may be limited to commercial or light industrial uses, or both. Housing may also be provided.
  - (p) *Resort mixed use.* Resort uses which provide a full range of facilities and services for visitors shall be the predominant type of development. The resort mixed use designation shall be confined to the Waikiki special area as defined in § 21-9.80.2. The term "visitor unit," which is used in the special provisions, includes hotel rooms and resort condominiums, as well as other accommodations which are located in resort mixed use designated areas and reserved for visitor use. Resort mixed use areas shall permit hotel, visitor unit, apartment, housing, and commercial uses. The LUO shall establish appropriate requirements, which may include limits on the various land uses permitted within the resort mixed use areas, to prevent over-commercialization and excessive development of hotels and other visitor units.
- (Sec. 32-1.3, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.3) (Am. Ords. 90-5, 92-143)

#### § 24-1.4 General urban design principles and controls.

The following general principles, together with the more specific urban design principles and controls set forth in Part II of each development plan, outline the desired three-dimensional implications of the land use pattern depicted on the land use map to be implemented through public and private actions. These urban design principles and controls shall be applied by all city agencies in the performance of their powers, duties, and functions as related to both public and private developments.



- (a) *Public views.* Public views include views along streets and highways, mauka-makai view corridors; panoramic and significant landmark views from public places; views of natural features, heritage resources, and other landmarks, and view corridors between significant landmarks.

Such public views shall be protected by appropriate building heights, setbacks, design, and siting controls established in the LUO. These controls shall be determined by the particular needs of each view and applied to public streets and to both public and private structures.

The design and siting of all structures shall reflect the need to maintain and enhance available views of significant landmarks. No development shall be permitted that will block important public views.

Whenever possible, overhead utility wires and poles that significantly obstruct public views shall be relocated or placed underground.

- (b) *Open space.* Open space areas consist of but are not limited to the ocean, beaches, parks, plazas, institutional properties with park-like grounds, streams, inland bodies of water, significant land forms, golf courses, cemeteries, and agricultural and preservation lands. The functions of open space areas are to provide visual relief and contrast to the building environment, to serve as outdoor space for public use and enjoyment. The preservation and enhancement of areas that are well suited to perform these functions shall be given high priority.

The city's mountains, hills, shoreline, and streams shall be considered as major scenic, open space, and recreational resources. Adequate public access to these resources shall be incorporated as part of developments adjacent to them.

Existing natural stream beds and drainageways shall be retained wherever possible. Where further channelization must occur, materials that are harmonious with the setting, such as stone, shall be used whenever feasible.

Open spaces that act as physical boundaries distinguishing one community from another shall be preserved.

Additional setback requirements exceeding the minimum permitted under zoning shall be established along shorelines subject to high erosion risks. These setback requirements shall apply to all construction activity, including structures, roads, seawalls, groins, revetments, and other improvements which contribute towards shoreline erosion.

- (c) *Vehicular and pedestrian routes.* Landscaping shall be provided along major vehicular arterials and collector streets as a means to increase the general attractiveness of the community and the enjoyment of vehicular travel for visitors and residents. The following streetscape elements shall be considered in the design of the landscaping: plantings; street furniture; utility fixtures; sidewalk paving treatments; small parks; signs; and building setback and facades. Different themes appropriate to the particular character of different communities may be provided.

Pedestrian corridors shall be provided in heavy traffic areas, such as in resort, commercial, and apartment districts. Such elements as shade trees and other plantings, street furniture, attractive building frontages, and other pedestrian-oriented elements shall be part of the design of pedestrian corridors. Pedestrian corridors shall be designed to be safe, minimize conflicts between people and vehicular movements, and shall be integrated with or provide access to open spaces. Provisions for bikeways shall also be made.



Major roadway intersections, particularly along arterial and collector roadways, that serve as key community orientation points shall be made easily identifiable through such means as distinctive landscaping, lighting, signing, and the siting of adjacent structures.

Landscaping controls shall be established for ground-level parking areas to provide pleasing environments and to help minimize the visual dominance of paved surfaces.

- (d) *General height controls.* Maximum allowable heights for structures in each land use classification and for designated special areas are specified in the special provisions of each development plan. They are intended to establish a general policy for the maximum overall height in the area, rather than to set specific zoning standards. Lower zoning height limits may be established where the protection of important views or other design considerations indicate they would be appropriate. The determination of zoning height limits shall take into consideration all applicable urban design policies and controls and the nature of existing land uses in the area.
- (e) *Energy efficiency in developments.* Efficient energy use shall be encouraged in all developments. Existing development controls and regulations shall be reviewed and revised as necessary to eliminate any provisions which unnecessarily restrict energy efficiency and the use of alternative energy sources.

Development incentives may be provided for projects that propose the use of alternative energy sources and energy-efficient designs. The director of planning and permitting shall prepare specific criteria and incentives for review and adoption by the city council.

The director of planning and permitting, with the assistance of the chief engineer, shall establish energy performance guidelines for evaluation of public and private buildings. Means of assessing direct and indirect costs to the community shall be included in these guidelines.

- (f) *Existing built-up, single-family residential areas.* The areas designated for residential use consist of both existing built-up, single-family residential communities and areas that are considered appropriate for future residential development. New development in existing communities shall generally be limited to that which is compatible with or enhances the desired physical and social character and lifestyle. Changes affecting the present physical and social nature of these areas shall be made only when community needs or general public interests can be demonstrated.

New residential development in rural areas shall be compatible with the general rural character of the area.

The architectural design of nonresidential structures shall be compatible in character with the surrounding residential uses.

- (g) *Mixed use areas.*

- (1) *Purposes.* Mixed use areas are intended to implement general plan objectives and policies in the following areas of concern:
  - (A) Provide for mutually supportive combinations of any one or more of the following: residential and commercial or industrial uses, or both, that optimize the use of both land in urban centers and of already available support facilities and services;



- (B) Encourage walking and bicycling activities, especially walking to and from jobs; thus reducing automobile dependency and demands upon the transportation system;
  - (C) Promote development designs and land use arrangements that save energy;
  - (D) Provide greater opportunities for variety in urban experiences for pedestrians;
  - (E) Encourage greater social interaction within communities; and
  - (F) Permit the adaptive reuse of existing structures and the preservation of older buildings.
- (2) *Performance standards.* Where appropriate, performance standards shall be applied to address potentially adverse impacts related to air, noise, and other forms of environmental pollution, traffic congestion, and hours of operation that may result from the permitted mixture of uses.

- (h) *Rural areas.* Rural areas are characterized by a preponderance of open and agricultural lands with limited development clustered in small, low-density residential areas which have a strong sense of community and a countrylike environment. Large-scale agricultural operations or small farms are major economic activities and constitute the predominant land use. Business centers are generally modest in size, low in intensity of use, and primarily oriented to meeting the day-to-day shopping and service needs of the surrounding area's residents.

The location and character of new development in rural areas shall be consistent with the above-described characteristics of such areas and be guided by the following principles and controls.

- (1) The visual attractiveness that distinguishes rural from urban and country from city shall be maintained.
- (2) In designating areas for development, primary consideration shall be given to the protection and preservation of good agricultural land and uses, the shoreline, streams, and wetlands, the mountains and watershed areas; ridgelines and steeply sloping areas, and other natural resources and environments.
- (3) Single-family dwellings at low densities shall be the predominant form of housing in residential areas. Clustering of dwellings shall be encouraged to promote the preservation of important natural areas and open spaces, the establishment of agricultural operations, and economy in the provision of utilities and services.
- (4) Development along the shoreline and makai of arterial highways that are within 1,000 feet of the shoreline shall be generally limited to parks, agricultural operations, and single-family residential dwellings. Private developments shall include public shoreline accessways at intervals of approximately one-half mile.
- (5) Appropriately located sites shall be provided for community-based economic activities which use locally available raw materials and the skills of craftspeople living in the area.
- (6) Commercial development shall be characterized by extensive landscaping and designs compatible with the rural character of the area.



- (7) Design standards for streets and other infrastructure improvements shall reflect the reduced demands of lower density developments and be compatible with the desired country-like environment of rural communities.

(Sec. 32-1.4, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.4) (Am. Ords. 90-5, 90-41)

#### **§ 24-1.5 General principles and controls for parks, recreation, and preservation areas.**

This section sets forth general principles and controls for the establishment of a parks, recreation, and preservation system within each development plan area. This system shall consist of existing and future community-based parks and recreation sites, existing and future State and county-based parks and recreation sites, and preservation areas.

- (a) *Parks and recreation areas.* Parks and recreation areas as defined in § 24-1.3 shall be located and designed so as to be suitable for different and varied neighborhoods and available to all residents of Oahu. Wherever possible, existing and future parks within this system shall be linked by streams and other green belt trails, pedestrian ways, bicycle ways, hiking trails, parkways, and boulevards.

The following principles and controls shall be applied to the elements of the State and county and community-based parks and recreation system.

##### *(1) State and county parks and recreation sites.*

- (A) *Preservation/forest areas.* Areas of recreational value shall be of low intensity use. When development prevents the establishment of mountain parks, streamside parks, or other upland recreational facilities, public access shall be made available to the resource. Points of access to hiking trails, hunting areas, swimming areas, and camping areas shall be established and space allotted for adequate parking and other support services and as provided under Ordinance 4311 (1974), "Public Access of Pedestrian Traffic to Shoreline and Mountain Areas."
- (B) *Significant natural or historical parks and sites.* These parks or sites shall be used for medium or low intensity recreation activity while preserving their natural or historical characteristics. Examples include Koko Head Regional Park, Makapuu Beach Park, Kahana Valley State Park, Sacred Falls State Park, Kaena Point State Park, Kualoa Regional Park, and Kawainui Marsh.
- (C) *State county regional recreation parks.* These parks or sites may be beach or inland sites with some natural significance and shall be used for medium to high intensity recreational activities, including picnicking facilities. Examples include Sand Island State Park, Malaekahana State Park, Hoomaluhia Park, Kaiaka State Recreation Area, and Queen Kapiolani Park.
- (D) *Beach/shoreline parks.* A system of public parks shall be provided and private greenbelts encouraged along the island's shoreline. New coastal development shall be regulated to preserve shoreline open space, including recreational support facilities, such as picnicking, and adequate space for public parking.
- (E) *Beach/shoreline rights-of-way.* Where development prevents the establishment of a shoreline park, public shoreline rights-of-way shall be provided to allow access to coastal recreational sites and resources. Where feasible in rural areas, points of public shoreline access may be no more than one-half mile apart. Where feasible in urbanized areas, points of public shoreline access may be no more than one-quarter mile apart. Points of public shoreline access may be sited at closer intervals when



justified by public demand, traditional use patterns, high-quality recreational resources, barriers to safe pedestrian thoroughfare along the shoreline, land development patterns, or natural features. Points of access to beach/shoreline areas shall be established and space allotted for adequate parking and other support services.

- (F) *Zoos and botanic gardens.* A system of public and private zoos and botanic gardens shall be maintained wherever feasible.
- (G) *Golf courses.* Public or semi-public golf courses shall be provided where possible at a standard of one 18-hole course per 100,000 people.
- (2) *Community-based parks and recreation sites.* Each community shall have reasonable accessibility to all types of public parks and facilities according to population size or community preferences, or both. Community-based parks and recreation include public and legislatively required private park and recreational facilities. Such uses may be permitted in any designated use area. When such uses are located on parcels smaller than the required minimum lot size of the surrounding uses or are not on a subdivision parcel solely for its use, the area occupied need not be shown on the maps and may be zoned in accordance with the use designation on the land use map.
  - (A) *Parks standards.* The following types of parks may be established within each community.
    - (i) *District parks/centers.* District recreation parks shall consist of 15-20 acres or more and serve approximately 25,000 people. Facilities may include a gymnasium/recreation complex, a pool, playfield, courts, and passive areas.
    - (ii) *Community parks/centers.* Community recreation parks shall consist of 10 acres or more and serve approximately 10,000 people. Facilities may include a recreational building, playfields, courts, and passive areas.
    - (iii) *Neighborhood parks/playgrounds.* Neighborhood parks shall consist of four to six acres or more, and serve approximately 5,000 people. Facilities may include playfields, courts, and passive areas.
    - (iv) *Mini parks, urban squares, malls and passive parks.* Small mini parks, urban parks and squares shall be located wherever possible in high-density neighborhoods as well as in high-density business and industrial areas. Passive and picnic areas may be part of the above park types.
  - (B) *Built-up areas.* Built-up areas with inadequate recreational opportunities and insufficient suitable sites for future recreational development shall have recreation opportunities made available within a reasonable distance of the immediate service area. Land for open space and recreation purposes within and outside of the immediate service area shall be provided at a minimum of two acres per thousand persons.
  - (C) *Suburban and new development areas.* Suburban and new development areas shall include land for open space and recreation purposes at a minimum of two acres per thousand persons.



(D) *Semi-rural or low-density areas.* Semi-rural or low-density areas shall have reasonably accessible parks and facilities according to parks and recreation standards, but serving larger geographic areas.

(b) *Preservation areas.* Preservation areas as defined in § 24-1.3 encompass elements of Oahu's natural environment that give the island its essential character, while also performing invaluable functions for its residents at no cost. These functions include buffering the island from storm winds and flood tides, stabilizing the shorelines, purifying water, and maintaining a fresh water system that supports unique wildlife and lush vegetation. Preservation areas and their related functions support the health, safety, and welfare of every resident of Oahu and shall be preserved and protected from incompatible development.

(Sec. 32-1.5, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.5) (Am. Ord. 90-43)

#### **§ 24-1.6 Identification of areas, sites, and structures of historical significance.**

The principal areas, sites, and structures of historical, archaeological, or architectural significance include but are not limited to those registered under the national and Hawaii registers of historic places, as amended. The continued use, enhancement, or preservation of such areas, sites, and structures shall be incorporated or promoted in any applicable action by the city. Such actions shall be permitted in all areas designated for any use on the land use map. Adjacent development shall complement registered properties with appropriate building facades, setbacks, scale, heights, and compatible uses.

(Sec. 32-1.6, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.6)

#### **§ 24-1.7 Identification of public thoroughfares, highways, and streets.**

The existing system of public thoroughfares, highways and streets is shown on the development plan land use map. Except for minor streets, planned improvements to this system are shown on the public facilities map. Planned improvements include exclusive right-of-way for at-grade and grade-separated public transit. The descriptions of the planned facilities are not to be interpreted as precise descriptions or exact locations, and the nature and location of these facility systems are to be interpreted flexibly to the degree necessary to ensure reasonable implementation. Pursuant to Charter § 6-1703 and HRS Chapter 91, the director of transportation services, with the assistance of the chief engineer, shall establish and maintain future right-of-way widths and setback lines for planned street and transit improvements shown on the public facilities map, as well as for planned improvements to minor streets.

“Major street” means a freeway, expressway, arterial, or collector street, whether publicly or privately owned, or both, which is primarily intended to serve through traffic or the circulation of traffic between different communities or portions of a community, or both. In the case of arterial and collector streets, access to abutting properties may also be permitted.

“Minor street” means a street which is primarily intended to provide access to abutting property and serve local traffic to and from these properties.

Bus routes may be established, modified, or withdrawn as required without amendment to the development plans.

The chief engineer, with the assistance of the director of transportation services, shall adopt standards governing roadways and right-of-way widths for new developments.



Street improvements shown on the development plan public facilities map shall be implemented in such a way as to effectuate a system of bikeways. The design of the system of bikeways is to be guided by Bike Plan Hawaii Master Plan, dated March, 1977, and the construction shall be implemented pursuant to bikeway standards to be established by the department of transportation services.

Vacant land beneath elevated highways may be zoned and used for other than highway purposes. Where rezoning is required, the selection of zoning district classifications shall be compatible with the uses permitted on abutting lands, as designated on the development plan land use map, and with the prevailing noise levels, air quality, and other related environmental conditions.

(Sec. 32-1.7, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.7)

**§ 24-1.8 Identification of public buildings, public or private facilities for utilities, terminals, and drainage.**

- (a) Both publicly funded and privately funded facilities are shown on the map. The general time frame (within six years, beyond six years) for land acquisition or construction, or both, is also shown for publicly funded facilities. The nature and location of these facilities are to be interpreted flexibly to the degree necessary to ensure reasonable implementation.
- (b) Sites occupied by existing facilities are shown on the development plan land use map. Where appropriate, facilities and operations shall be screened from incompatible uses by means of buffer areas or landscaping.
  - (1) *Public buildings.* Public buildings are those owned by the City and County of Honolulu, the State of Hawaii, and the federal government, except for buildings on military bases. Public buildings that generate large amounts of traffic shall, whenever possible, be centrally located in their service area and on sites that are easily accessible to public and private transportation. The design of public buildings shall strive for energy efficiency and, where feasible, make use of natural ventilation and alternate energy sources such as solar and wind. Life cycle costs shall be used in the selection of operating equipment.
  - (2) *Public or private facilities for utilities.* Energy efficiency both in terms of any one or more of the following; facility operating and capital costs and collection or distribution costs, or both, shall be given priority consideration in the selection of sites for public and private utilities.
    - (A) *Wastewater collection and disposal system.* The wastewater system consists of treatment facilities, ocean outfalls, force mains, interceptors, trunk sewers, and pump stations. Collection sewers which provide service to individual properties are not shown on the public facilities map. Adequate screening or a buffer zone of compatible uses, or both, shall be provided around wastewater treatment facilities.
    - (B) *Solid waste collection and disposal system.* The solid waste collection and disposal system consists of collection baseyard facilities, transfer and convenience stations, landfill sites, incinerators, hazardous waste facilities, and resource recovery facilities. Adequate screening and/or a buffer zone of compatible uses shall be provided around landfill sites, incinerators, hazardous waste facilities, and resource recovery facilities.



- (C) *Water supply system.* The water supply system consists of wells, shafts, tunnels, and other water sources; storage and control facilities; booster stations; transmission and distribution lines; and support facilities such as offices and base yards of the board of water supply. Exploratory wells are not depicted and may be allowed in any land use district.
- (D) *Electrical generation and regional electrical transmission facilities.* Electrical power generation facilities, regional electrical transmission lines (above 46kV), and transmission substations served directly from these transmission lines are shown as public facility uses on the public facilities map. Local electrical distribution lines (46kV and below) and their substations are not depicted and may be allowed in any land use district.

(3) *Terminals.*

- (A) *Airports.* State-owned or operated airports are shown as public facility uses on the public facilities maps. New general aviation airports shall not be located where they create significant noise hazards or accident potential for established urban uses.

New urban development shall not be permitted in areas where such development would be incompatible with the noise hazards or accident potential of military or civilian airports.

- (B) *Harbors.* The water transportation system consists of publicly-owned commercial and recreational harbors, and launching ramp facilities. Launching ramp facilities are not shown on the public facilities map and may be allowed in any land use district.

Land uses directly supportive of marine activities may be allowed on harbor fast lands. For recreational harbors, this may include such uses as administration buildings, boatclub facilities, boat repair yards, marine fueling facilities, marine sales and services, parking areas, food services for harbor users, ice and cold storage facilities, hoists, launching ramps, washracks, storage facilities and other related uses. For commercial harbors, this may also include cargo handling and storage facilities, seafood processing plants, shipyards, cruise or charter boat offices, passenger handling facilities, maritime-related industrial activities, and other such uses.

- (4) *Drainage.* The stormwater management system includes natural streams, drainage channels, drainage systems, drainage basins, and ponds. Natural streams and existing major channels are delineated on the land use map. Planned future drainage improvements to prevent or contain hazardous flooding are shown on the public facilities map. Drainage improvements for nonhazardous flows are not shown and are allowable in any land use district.

Whenever practical, drainage improvements shall emphasize natural means and retention of water, with minimum reliance on structural means and rapid water transport.

(Sec. 32-1.8, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.8) (Am. Ords. 89-9, 92-59)

**§ 24-1.9 Sequencing of public facilities.**

- (a) *Purpose.* One of the purposes of the general plan and the development plans is to set forth the desired sequence, patterns, and characteristics of future development. To achieve this purpose, the general plan sets forth objectives and policies that relate to the priority or sequence of development and thereby suggests public



facility needs that must be met in the future. It is a purpose of the development plans to provide a means of establishing the desired sequence for constructing public facilities consistent with general plan sequencing objectives and policies, and in a manner that will also provide guidance for private development decisions.

Charter § 6-1503 provides that the planning and permitting department, through its director, shall review the capital program and budget for conformance with the general plan and development plans. It is the responsibility of the director to review public facility proposals for their consistency with the general plan sequencing objectives and policies and to make the director's recommendation to the mayor in coordination with the chief budget officer's preparation of the capital program and budget. This review process is designed to allocate financial resources for the construction of public facilities in a manner that is consistent with the sequencing objectives and policies of the general plan.

- (b) *Sequencing policies.* The development plan public facilities map shall establish the general sequence of facility development for each development plan area. The timing of land use and public facility decisions shall be determined by policies and guidelines expressed in the general plan and the special provisions of each development plan. Priority development areas shall be identified. Where adequacy of public infrastructure is a concern, the order and conditions set forth in the special provisions shall guide the location and timing of land use and public facility changes. Renovation and redevelopment projects shall be considered in the overall sequencing of development.

Priority shall be given proposals that will correct deficiencies in public facilities or encourage development in areas designated for growth in accordance with the following policies:

- (1) *Deficiency correction.* First priority shall be given in the programming of capital improvements to those public facility projects that:
  - (A) Will improve or replace existing public facilities in unsound condition;
  - (B) Will correct public facility needs identified in each development plan area;
  - (C) Will not duplicate other available public or private facilities;
  - (D) Will correct recognized but previously unmet facility needs; and
  - (E) Will benefit low-income and moderate-income residents.
- (2) *Growth facilitation.* Priority shall also be given in the programming of capital improvements to those public facility projects that:
  - (A) Are consistent with the needs that will be generated by development planned in accordance with the land use designations in each development plan;
  - (B) Are consistent with the general plan pattern of population distribution for each development plan area;
  - (C) Are planned for construction in a priority area for development or redevelopment;
  - (D) Will not encourage growth in urban fringe and rural areas; and



(E) Will not create a demand for unavailable or unplanned regional support services.

(c) *Procedure for evaluation of public facility proposals.*

- (1) *Planning and permitting department.* To assist the council in evaluating the public facility proposals set forth in the CIP to be adopted by the council by June 30 of each year, the planning and permitting department shall, by July 15 of the prior year, prepare a report setting forth sequencing guidelines for line departments to use in preparing their public facility proposals. The department's report shall be submitted to the council for its information.

The planning and permitting department shall evaluate and propose a priority or rank for each line department public facility proposal in accordance with the sequencing policies set forth in subsection (b) and any specific development priorities set forth in the section relating to development priorities of each development plan's special provisions. In determining such priority or rank for each public facility proposal, the department may make priority adjustments for projects within each development plan area that are interdependent. In addition, the department shall evaluate and propose an overall ranking of line department public facility proposals among all development plan areas. In making this determination, the department may make adjustments in the priorities of projects among development plan areas to reflect factors including but not limited to:

- (A) The relative percentages of population growth projected among development plan areas;
- (B) The improvement of public facilities within identified deficiency areas;
- (C) The extent of islandwide benefit; and
- (D) Legal, health, and safety requirements.

- (2) *Council review.* The council shall review the mayor's proposed capital budget in relation to sequencing policies, and any specific development priorities set forth in the development plans. Pursuant to Charter § 9-104.2, the council may, upon findings of fact relating to sequencing and other relevant criteria, add new items to, or delete or amend any item or items in the proposed capital budget.

(Sec. 32-1.9, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.9) (Am. Ord. 94-26)

**§ 24-1.10 Social impact of development.**

- (a) *Purpose.* A major purpose of preparing a general plan and development plans is to recognize and state the major problems and opportunities concerning the needs and development of the city and the social, economic, and environmental effects of such development. In pursuit of such purpose the general plan has identified social, economic, and environmental policies that may be taken into consideration in making development decisions. The general plan contains statements of objectives with respect to the distribution of social benefits. These statements of objectives provide general guidelines for identifying the range of potential social impacts of a proposed development project upon residents within the local area.
- (b) *Social impact factors.* In evaluating any proposed development, the general plan policies and objectives relating to the distribution of social benefits and the mitigation of negative social impacts shall be considered. The following factors shall be examined as they pertain to such objectives:



- (1) *Demographic.* Whether the development will:
  - (A) Increase or decrease the residential population;
  - (B) Increase or decrease the visitor population; and
  - (C) Change the character or culture of the neighborhood.
- (2) *Economic.* Whether the development will affect:
  - (A) The rate and pattern of economic growth and development;
  - (B) Public costs or revenues;
  - (C) The availability and diversity of jobs in the development plan area; and
  - (D) The principal economic activities on Oahu.
- (3) *Housing.* Whether the development will affect:
  - (A) The range of available housing choices;
  - (B) Speculation in land and housing;
  - (C) Property values of existing homes; and
  - (D) The provision of housing for low to moderate income and gap group families.
- (4) *Public service.* Whether the development will affect:
  - (A) Medical facilities;
  - (B) Educational facilities;
  - (C) Recreational facilities;
  - (D) Transportation facilities;
  - (E) Police and fire protection; and
  - (F) Public utilities facilities.
- (5) *Physical; environmental.* Whether the development will affect:
  - (A) The natural environment;
  - (B) Existing natural monuments, landmarks, and scenic views;



(C) Open space; and

(D) The physical attractiveness and qualities of the area.

(Sec. 32-1.10, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.10) (Am. Ord. 94-26)

**§ 24-1.11 Certificate of compliance with the social impact factors.**

All applicants for a development plan amendment shall include, as part of their application, a certification that the social impact factors listed above have been given careful consideration, and shall report the conclusions of such consideration. The consideration of social impact factors shall include an opportunity for parties affected by a proposed project to identify alternative ways of managing or mitigating any expected negative social impacts. The completed application and certification shall be made a public record.

(Sec. 32-1.12, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.12)

**§ 24-1.12 Amendment procedures.**

(a) *Annual amendment review.* Amendments to these common provisions and each development plan shall be considered by the council as part of the annual amendment review procedure established by the planning and permitting department, unless they satisfy the requirements for independent consideration.

(b) *Independent consideration.*

The following types of amendments may be considered independent of the annual amendment review:

- (1) Land use amendments that only involve the redesignation of lands to preservation;
- (2) Land use map amendments within the Primary Urban Center, Ewa, or Central Oahu DP areas, which involve an expansion of not more than 20 acres to agricultural use, park/golf course or residential use; or 10 acres to apartment, commercial, industrial, residential emphasis mixed, commercial emphasis mixed, or commercial-industrial emphasis mixed use.

Amendments involving potential cumulative impacts resulting from separate applications in the same area shall be processed in the annual amendment review.

Land use map amendments must have the required utilities and support services which are:

- (A) Currently available and adequate to serve the proposed use;
  - (B) Designated on the public facilities map; or
  - (C) Otherwise committed to be built; and are not needed to service uses already designated on the land use map.
- (3) An amendment to the public facilities map when authorized by the city council by resolution or initiated by the director of planning and permitting;



- (4) Amendments which correct mistakes or miscalculations not involving basic methodology in the development plans;
- (5) All text amendments, provided that any such amendments do not change the nature or extent of planned land uses to a greater degree than permitted in subsection (b); and
- (6) Any amendment which proposes the development of an affordable residential housing project or a planned community, or both, with an affordable housing component as a principal use in which at least 60 percent of the units are affordable to families at or below 120 percent of median income and supported by the department of community services.

(c) *Procedure.*

- (1) Amendments may be submitted for consideration by an interested party through the filing of a completed amendment application with the planning and permitting department. The director of planning and permitting and city council may similarly initiate for consideration amendments they wish to have studied.
- (2) Any revision or amendment proposed by the city council shall be referred to the director of planning and permitting and the planning commission by resolution, which resolution shall be accompanied by supporting documentation sufficient to satisfy the director's usual requirements for the commencement of processing.

The director of planning and permitting shall assist the council in proposing revisions or amendments as permitted by § 2-24.3, by gathering and preparing the necessary supporting documentation sufficient to satisfy the usual requirements to commence processing such an amendment.

- (3) If the planning commission recommends disapproval of the city council's proposed revision or amendment or recommends a modification thereof, not accepted by the city council, or fails to make its report within a period of either 30 days after the close of its public hearing or 90 days after its receipt by the commission, whichever occurs first, the council may nevertheless adopt such revision or amendment, but only by the affirmative vote of at least two-thirds of its entire membership.
- (4) A proposal which does not have the support of either the director of planning and permitting or city council shall be processed as an "unendorsed proposal."

Any revision of or amendment to any existing development plan which has been processed as an "unendorsed proposal" shall, in the absence of an affirmative recommendation from the planning commission, require for its adoption the affirmative vote of at least two-thirds of the entire membership of the city council.

- (5) Any amendment which does not satisfy the criteria of subsection (b) shall be included in the annual amendment review and shall be processed in accordance with the following procedures:
  - (A) Completed amendment applications for the annual review filed with the department of planning and permitting no later than January 15 of each year by private applicants or no later than January 22 of each year by all public agencies, including the city administration and the city council, shall be processed in the annual amendment review for that year. Applications filed thereafter shall be processed in the next year's annual amendment review.



- (i) Applications may be withdrawn from annual amendment review processing subject to the approval of the director of planning and permitting. Applicants shall submit a written request stating the reasons for withdrawal to the planning and permitting department no later than five working days before July 1.
  - (ii) Thereafter, applicants seeking to have their applications withdrawn from further annual amendment review consideration shall submit a written request stating the reasons for withdrawal to the city council, with copies to the planning commission and the planning and permitting department.
- (B) Annually, not later than February 15, the director of planning and permitting shall submit a request in writing to pertinent agencies and neighborhood boards for their comments and recommendations on all amendments initiated for consideration in the annual amendment review. The agencies and boards shall, within 60 days of receipt of the request, submit their comments and recommendations in writing to the director of planning and permitting.
- (C) Annually, not later than July 1, the director of planning and permitting shall submit reports to the city council on the following:
  - (i) A report on all proposed amendments to the development plans with the director of planning and permitting's recommendations; and
  - (ii) A report on all amendments in which the director of planning and permitting has received a request for withdrawal from an applicant and where the director of planning and permitting approves that request.
- (D) *Action by planning commission.* The planning commission, upon receipt of a report from the director of planning and permitting or the council for an amendment or amendments to a development plan, shall hold a public hearing on the proposed amendments, and shall transmit its findings and recommendations thereon, through the mayor, to the council for its consideration and action. Such findings and recommendations on an annual amendment review shall be transmitted in time to be received by the city council by October 1 of the year covered by that annual amendment review.
- (E) *City council action.* All proposed amendments to the development plans received by the city council from the planning commission by October 1 of each year shall be considered as part of the annual amendment review for the improvement and development of the city for that year. Amendments received after that date may be held on file and considered in the annual amendment review for the following year, unless they meet the requirements for independent consideration. Amendments received after that date may also be considered as part of the annual amendment review for this year pursuant to subsection (c)(3).
- (6) For proposed amendments which meet the requirements for independent consideration specified in subsection (b):
  - (A) The director of planning and permitting, within 90 days, which may be extended with applicant's consent, of the date of filing of a completed application, shall submit a report with the director of planning and permitting's recommendation to the planning commission for its consideration and



action. The 90-day period does not include any environmental assessment as may be required under HRS Chapter 343.

(B) The planning commission, upon receipt of a proposal for an amendment or amendments to a development plan, shall, within 45 days, hold a public hearing on the proposed amendments. The planning commission shall, within 30 days after the close of the public hearing, transmit to the city council the director of planning and permitting's report and proposed ordinance with the planning commission's recommendations.

(7) *Authority.* Nothing in this section shall be construed as an abridgement or delegation of the responsibility of the director of planning and permitting, or of the inherent legislative power of the city council, to propose amendments of the development plans to the planning commission, pursuant to the Charter and the above procedures, independent of any amendment application.

(8) No application for development plan land use map amendment shall be accepted for processing unless the applicant notifies, by mail, all owners, lessees, sublessees, and residents of the affected property and of each abutting parcel.

(Sec. 32-1.13, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.13) (Am. Ords. 90-5, 91-77, 91-78, 93-07, 93-14, 94-26)

#### **§ 24-1.13 Development plan annual report and biennial report.**

(a) By September 1 of each year, the director of planning and permitting shall submit to the council a development plan annual report of the status of the development plans. Such review shall include data pertaining to the following:

- (1) The status of implementation of previously approved amendments to the special provisions, land use map, and public facilities map;
- (2) The population capacity and available acreage for development in each development plan area; and
- (3) The status of all residential developments involving more than 10 acres and 25 units which are designated for housing on the development plans but have not been completed. The report may include the identification of zoning status, infrastructure status, and the number of affordable and market-rate units proposed, completed, and under construction in each development plan area.

(b) By December 31 of alternate years, beginning in 1993, the director of planning and permitting shall submit to the council a report on the conditions of the city and the city's regulatory system and capital improvement program with respect to the policies and objectives of the general plan and development plans. Such review shall take into account the following:

- (1) The social, economic, and environmental conditions and impacts related to future development;
- (2) Proposed actions to improve implementation of the general plan, the common provisions, and the development plans; and



- (3) Other studies and recommendations on matters determined by the director of planning and permitting or requested by the city council.

(Sec. 32-1.14, R.O. 1978 (1987 Supp. to 1983 Ed.)) (1990 Code, Ch. 24, Art. 1, § 24-1.14) (Am. Ords. 88-22, 94-26)

**§ 24-1.14 Golf course development.**

- (a) *Additional application requirements.* In addition to information requested on the standard application form furnished by the director of planning and permitting, each application for a development plan land use map amendment for any golf courses, including expansions or reconfiguration of existing courses, shall include information which responds to criteria related to social and growth impacts and environmental quality impacts, the elements of which criteria are discussed in subsection (b) and may be further detailed in the rules of the planning and permitting department relating to development plan amendments. The application may also include a proposal for a community integration program to be accepted at the time of a decision to rezone a parcel or to issue a plan review use permit authorizing a golf course in accordance with its development plan designation; however, in evaluating a development plan land use map amendment application and making recommendations thereon, the director of planning and permitting is authorized to consider and analyze, in addition to the social, growth, economic, and environmental impacts, the extent and merits of any proposed community integration program.
- (b) *Standards and criteria to be applied in the review and approval of golf courses.* The evaluation, acceptance for processing, and approval of any application for a development plan amendment which contemplates any golf course use shall be governed by the following standards and criteria:
  - (1) *Social and growth criteria.*
    - (A) Evaluation of applications for golf courses generated during the course of an annual amendment review may be sensitive to such concerns as:
      - (i) Whether the provision of open space, which is one of their chief assets, is supplied in a manner that the entire community can enjoy, by the provision or preservation of significant view planes and vistas, especially from the vantage point of major public thoroughfares and public places;
      - (ii) Whether golf courses are displacing people or important land uses, or, alternately, whether there is an adequate compensation or relocation plan, or both, concerning these displacements;
      - (iii) Whether golf courses are located on prime agricultural lands rated “A” or “B” by the land study bureau classification (this does not preclude the approval of golf courses on “A” or “B” rated land, however the approval of golf courses on such lands is discouraged);
      - (iv) Whether the area contains golf courses at which residents of the area have an opportunity to play at reasonable rates;
      - (v) Whether a concentration in a particular area causes traffic problems; and
      - (vi) Whether golf courses would have an impact on archaeological, cultural, or historic resources including the preservation and the public access to such resources.



These criteria may be used to compare the merits of individual proposals in the course of the development plan annual amendment review.

- (B) *Type.* Golf courses may be carefully designed for compatibility of the proposed golf course with both existing and planned surrounding uses. Golf courses may be evaluated in terms of whether they provide an appropriate buffer:
  - (1) Between incompatible uses (i.e., separating residential from agricultural uses);
  - (2) Between potentially incompatible levels of intensity for similar land uses (i.e., single family residential and medium or high density apartment uses); or
  - (3) From dangerous conditions or area (i.e., blast zones or flood prone areas).
- (2) *Economic criteria.* The director of planning and permitting is authorized to require an applicant for a development plan amendment contemplating a golf course use to provide a forecast of the impact of the project on the value of land in the area and to indicate the impact, if any, on real property taxes. The material provided may be used as a basis for a comparison among various golf course proposals in the course of the development plan annual amendment review.
- (3) *Environmental quality criteria.* Golf course development which expands recreational opportunities may not have any serious environmental consequences. Therefore, development plan amendments which include any golf courses, including expansions or reconfigurations of existing courses, may not be approved unless all reasonable efforts are made by the applicant/developer in the design and the management of the golf course to minimize the use of pesticides, herbicides, fungicides, and fertilizers on the entire golf course project. All pesticide, herbicide, or fungicide use on any new golf course or on any golf course subject to an expansion or a reconfiguration must be done in compliance with State and federal laws and regulations governing their use, storage, and disposal. Golf course applications seeking a development plan amendment should be evaluated on how effectively each proposal:
  - (A) Establishes an integrated management plan to minimize the need for and the use of fertilizers and biocides;
  - (B) Conducts modeling studies which reflect unique site characteristics to evaluate the risk of fertilizer or biocide leaching or runoff from the project into water resources or wetland areas;
  - (C) Establishes a groundwater monitoring plan and system in accordance with State department of health guidelines. Such a plan may include, at a minimum, groundwater, surface water, and, if applicable, near shore water monitoring programs, at least one year before the commencement of construction to establish baseline data regarding water quality. Such periodic water monitoring may continue for at least one year after the completion of construction and commencement of golf course operations in accordance with the requirements of the department of health. All reports and data are to be submitted to the department of health, to the board of water supply, and to the department of planning and permitting;
  - (D) Establishes a solid waste disposal plan, that includes lawn and landscape trimmings disposal, emphasizing on-site use and disposal of such waste;



- (E) Promotes water conservation by using nonpotable water sources for irrigation in the following priority:
  - (i) Secondary-treated effluent from a municipal wastewater treatment plant;
  - (ii) Secondary or tertiary-treated effluent from a private wastewater treatment plant; and
  - (iii) Brackish groundwater, nonpotable surface water, including the establishment and use of runoff catchment basins, or partially desalinated water.

All golf course water source and irrigation plans shall be subject to the review and approval of the board of water supply, which may regulate or prohibit introducing lower quality irrigation water above higher quality subsurface water;

- (F) Designs the golf course to maximize the use of natural drainage, to recharge the aquifer and to alleviate the need for stream channelization, and other former drainage systems in nearby areas;
- (G) Protects or supports, or both, existing wetlands and fish and wildlife habitats;
- (H) Protects streams, rivers, and coastal waters from runoff. Minimizes runoff during the grading and construction of the golf course. Emphasizes the concept of target golfing to minimize the need for grading and biocide use. Protects and preserves natural vegetation to the greatest extent practicable. Uses vegetation buffers to protect water resources. Provides landscaping with indigenous flora appropriate to the setting and in recognition of water conservation principles;
- (I) Provides for the employment of a golf course superintendent who shall be responsible for sound and integrated golf course management practices. Consideration shall be given to the level of education and training of the superintendent including whether the superintendent is:
  - (i) A certified golf course superintendent of the Golf Course Superintendents Association of America who meets the association's continuing education/certificate requirements, or is actively seeking such certification within three years from employment as a golf course superintendent; and
  - (ii) Licensed or certificated to use fertilizers and pesticides on golf courses from the State agency regulating the use and application of fertilizers and pesticides or is actively seeking such license or certification;

Provides monitoring and reporting of the types, amounts, locations, and application techniques of any pesticide, herbicide, or fungicide use on a golf course. Submits quarterly biocide use reports to the department of agriculture, the department of health, the board of water supply, and the department of planning and permitting. Prepares contingency plans to rectify potentially harmful occurrences due to accidents, injudicious use or other management failures; and

- (J) Conforms to the Oahu water management plan.



- (c) *Community integration program.* The director of planning and permitting is authorized to enter into preliminary discussions with the golf course developer and the community concerning the establishment of a community integration program. Such a program may include but is not limited to the following elements:
- (1) An employment program to ensure that local job applicants possess the requisite skills and are given full consideration for all employment opportunities associated with the golf course project;
  - (2) Public play on the golf course at affordable rates and at convenient times to the golfing public;
  - (3) A junior golf program;
  - (4) The availability of clubhouse facilities and any other amenities for public use;
  - (5) The establishment of hiking, biking, and jogging paths around the perimeter of the project; and
  - (6) The consideration of local suppliers of obtaining developmental, operational, and maintenance materials for the golf course development project.

A proposal to provide a community integration program by a golf course developer is to be review and accepted by the city council at the time of a decision to rezone or to issue a plan review use permit authorizing a golf course in accordance with its development plan designation.

(1990 Code, Ch. 24, Art. 1, § 24-1.15) (Added by Ord. 91-82; Am. Ord. 94-26)



## **Honolulu - Land Use**



## ARTICLE 2: PRIMARY URBAN CENTER

### Sections

- 24-2.1 Definitions
- 24-2.2 Applicability and intent
- 24-2.3 Adoption of the Primary Urban Center development plan
- 24-2.4 Existing zoning and subdivision ordinances, approvals, and applications
- 24-2.5 Consistency
- 24-2.6 Implementation
- 24-2.7 Zoning change applications
- 24-2.8 Review of development and other applications
- 24-2.9 Annual capital improvement program review
- 24-2.10 Five-year review
- 24-2.11 Biennial report
- 24-2.12 Authority
- 24-2.13 Severability
- 24-2.14 Conflicting provisions

### § 24-2.1 Definitions.

Unless the context otherwise requires, the definitions contained in this section govern the construction of this article and the Primary Urban Center development plan.

***Charter.*** The Charter of the City and County of Honolulu 1973, as amended.

***City.*** The City and County of Honolulu.

***Council.*** The city council of the City and County of Honolulu.

***County.*** The City and County of Honolulu.

***Department* or *Department of Planning and Permitting.*** The department of planning and permitting of the City and County of Honolulu.

***Development.*** Any public improvement project, or any public or private project requiring a zoning map amendment.

***Development Plan* or *Sustainable Communities Plan.*** A plan document for a given geographic area which consists of conceptual schemes for implementing and accomplishing the development objectives and policies of the general plan for the several parts of the City and County of Honolulu.

***Director.*** The director of planning and permitting.



***Environmental Assessment*** and ***EA***. A written evaluation prepared in compliance with the environmental quality commission's procedural rules implementing HRS Chapter 343 to determine whether an action may have a significant environmental effect.

***Environmental Impact Statement*** and ***EIS***. An informational document prepared in compliance with the environmental quality commission's procedural rules implementing HRS Chapter 343, and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic and social welfare of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

***Finding of No Significant Impact*** and ***FONSI***. A determination based on an environmental assessment that the subject action will not have a significant effect and, therefore, will not require the preparation of an environmental impact statement.

***Functional Plan***. The public facility and infrastructure plans prepared by public agencies to further implement the vision, policies, principles, and guidelines set forth in the Primary Urban Center development plan.

***General Plan***. The general plan of the City and County of Honolulu as defined by Charter § 6-1508.

***Hawaii Revised Statutes*** or ***HRS***. The Hawaii Revised Statutes, as amended.

***Planning Commission***. The planning commission of the City and County of Honolulu.

***Project Master Plan***. A conceptual plan that covers all phases of a development project. The project master plan shall be that portion of an EA or EIS which illustrates and describes how the project conforms to the vision for the Primary Urban Center, and the relevant policies, principles, and guidelines for the site, the surrounding lands, and the region.

***Revised Ordinances of Honolulu*** or ***ROH***. The Revised Ordinances of Honolulu 2021, as amended.

***Significant Zone Change***. A zone change which involves at least one of the following:

- (1) Any change in zoning of 10 or more acres to a low-density residential district from a less-intensive zoning district;
- (2) Any change in zoning of two or more acres to a medium- or high-density residential (multi-family or apartment) district from a less-intensive zoning district;
- (3) Any change in zoning of five or more acres to a resort, commercial, industrial, or mixed use zoning district from a less-intensive zoning district; or
- (4) Any development which would have a major social, environmental, or policy impact, or major cumulative impacts due to a series of applications in the same area.

***Special Area***. A designated area within the Primary Urban Center development plan area that requires more detailed planning efforts beyond what is contained in the Primary Urban Center development plan.

***Special Area Plan***. A plan for a special area.



**Unilateral Agreement.** A conditional zoning agreement made pursuant to the city's land use ordinance as part of the process of enactment of an ordinance for a zone change that imposes conditions on a landowner's or developer's use of the property.

**Vision.** The future outlook for the Primary Urban Center region extending out to the year 2025 and beyond that entails creation of an urban growth boundary, an open space network to protect and enhance the region's natural, cultural and scenic resources, livable neighborhoods with a range of housing choices, a balanced transportation system to facilitate mobility, and the provision of adequate infrastructure and community facilities to meet the Primary Urban Center's future needs.

(1990 Code, Ch. 24, Art. 2, § 24-2.1) (Added by Ord. 04-14)

**§ 24-2.2 Applicability and intent.**

- (a) The Primary Urban Center development plan includes the coastal plain that extends along Oahu's southern shore from Waialae-Kahala in the east to Pearl City in the west, and from the shoreline to the westerly slopes of the Koolau Mountain Range.
- (b) It is the intent of the Primary Urban Center development plan to provide a guide for orderly and coordinated public and private sector development in the Primary Urban Center development plan area in a manner that is consistent with applicable general plan provisions, including the designation of the Primary Urban Center as the principal region for future growth in residential population and jobs.
- (c) This article and the Primary Urban Center development plan are not regulatory. Rather, they are established with the explicit intent of providing a coherent vision to guide resource protection and land use within the Primary Urban Center. This article shall guide any development for the Primary Urban Center, public investment in infrastructure, zoning and other regulatory procedures, and the preparation of the city's annual capital improvement program budget.

(1990 Code, Ch. 24, Art. 2, § 24-2.2) (Added by Ord. 04-14)

**§ 24-2.3 Adoption of the Primary Urban Center development plan.**

- (a) This article is adopted pursuant to the Charter § 6-1509 and provides a self-contained development plan document for the Primary Urban Center. Upon enactment of this article, all proposed developments will be evaluated against how well they fulfill the vision for the Primary Urban Center enunciated in the Primary Urban Center development plan and how closely they meet the policies, principles, and guidelines selected to implement that vision.
- (b) The plan entitled, "Primary Urban Center Development Plan," attached to this ordinance as Exhibit A4, is adopted by reference and made part of this article.
- (c) Ordinance 84-54, as amended, entitled "Chapter 24, Development Plans: Article 1. Development Plan Common Provisions," in its entirety is no longer applicable to the Primary Urban Center development plan area. The Primary Urban Center development plan, as adopted by reference by this ordinance, supersedes any and all common provisions previously applicable to the Primary Urban Center area.



- (d) Ordinance 81-79, as amended, entitled, “Article 5, Primary Urban Center: Part 1 Development Plan Special Provisions for the Primary Urban Center,” and “Part II Development Plan Maps (Land Use and Public Facilities Maps) for the Primary Urban Center” is repealed in its entirety.
- (e) Notwithstanding Section 2 of this ordinance and subsection (d):
  - (1) Those provisions of Chapter 24, Article 1, relating to development plan public facilities maps;
  - (2) Those provisions of Ordinance 81-79, as amended, relating to the development plan public facilities map for the Primary Urban Center; and
  - (3) The development plan public facilities map for the Primary Urban Center, as amended;
 shall remain in force and effect until such time as the public infrastructure map for the Primary Urban Center is adopted in accordance with Chapter 4, Article 8.  
 (1990 Code, Ch. 24, Art. 2, § 24-2.3) (Added by Ord. 04-14)

**§ 24-2.4 Existing zoning and subdivision ordinances, approvals, and applications.**

- (a) All existing subdivisions and zoning approved before June 21, 2004\* for projects, including but not limited to those subject to unilateral agreements, shall continue to remain in effect following the enactment of this ordinance.
- (b) Subdivision and zoning ordinances applicable to the Primary Urban Center development plan area enacted before June 21, 2004\* shall continue to regulate the use of land within the demarcated zones of the Primary Urban Center development plan area until such time as the subdivision and zoning ordinances may be amended to be consistent with the revised Primary Urban Center development plan.
- (c) Notwithstanding adoption of the revised Primary Urban Center development plan, applications for subdivision actions and land use permits accepted by the department for processing before June 21, 2004\* shall continue to be subject only to applicable ordinances, and rules in effect when the application is accepted for processing.  
 (1990 Code, Ch. 24, Art. 2, § 24-2.4) (Added by Ord. 04-14)

***Editor’s note:***

*\* “June 21, 2004” is substituted for “the effective date of this ordinance.”*

**§ 24-2.5 Consistency.**

- (a) The performance of prescribed powers, duties, and functions by all city agencies shall conform to and implement the policies and provisions of this ordinance. Pursuant to Charter § 6-1511.3, public improvement projects and subdivision and zoning ordinances shall be consistent with the Primary Urban Center development plan, as adopted.
- (b) Any questions of interpretation regarding the consistency of a proposed development with the provisions of the Primary Urban Center development plan and the objectives and policies of the general plan shall ultimately be resolved by the council.



- (c) In determining whether a proposed development is consistent with the Primary Urban Center development plan, the responsible agency shall primarily take into consideration the extent to which the development is consistent with the vision, policies, principles, and guidelines set forth in the Primary Urban Center development plan.
  - (d) Whenever there is a question regarding consistency between existing subdivision or zoning ordinances, including any unilateral agreements, and the Primary Urban Center development plan, the existing subdivision or zoning ordinances shall prevail until such time as they may be amended to be consistent with the Primary Urban Center development plan.
- (1990 Code, Ch. 24, Art. 2, § 24-2.5) (Added by Ord. 04-14)

**§ 24-2.6 Implementation.**

Implementation of this article relating to the Primary Urban Center development plan will be accomplished by the following:

- (1) Initiating zoning map and development code amendments to achieve consistency with the policies, principles, and guidelines of the Primary Urban Center development plan;
  - (2) Guiding public investment in infrastructure through functional plans which support the vision of the Primary Urban Center development plan;
  - (3) Guiding development in special areas of critical concern through the formulation of special area plans. Communities may develop special area plans, which shall be reviewed and may be accepted by the council by resolution, with or without amendments as the council deems appropriate, for the purpose of guidance in establishing specific policies and an implementation program for the affected area;
  - (4) Recommending approval, approval with modifications, or denial of developments seeking zoning and other development approvals based on how well they support the vision for the Primary Urban Center;
  - (5) Incorporating the Primary Urban Center development plan priorities through the public infrastructure map and the city's annual budget process;
  - (6) Evaluating progress in fulfilling the vision of the Primary Urban Center development plan periodically and presenting the results of the evaluation in the biennial report which is required by Charter § 6-1510.4; and
  - (7) Reviewing the vision of the Primary Urban Center development plan every five years and revising the policies, guidelines, and capital improvement program investments, as necessary, on the basis of the review.
- (1990 Code, Ch. 24, Art. 2, § 24-2.6) (Added by Ord. 04-14)

**§ 24-2.7 Zoning change applications.**

- (a) All zone change applications relating to land in the Primary Urban Center development plan area will be reviewed by the department of planning and permitting for consistency with the general plan, the Primary Urban Center development plan, and any applicable special area plan provisions.



- (1) The director will recommend either approval, approval with changes, or denial. The director's written review of the application shall become part of the zone change report which will be sent to the planning commission and the city council.
  - (2) A project master plan shall be part of an EA or EIS for any project involving a significant zone change. The director shall review the project master plan for its consistency with the Primary Urban Center development plan.
  - (3) Any development or phase of a development already covered by a project master plan which has been fully reviewed under this article shall not require a new project master plan, provided the director of planning and permitting determines that the proposed zone change is generally consistent with the existing project master plan for the affected area.
  - (4) If a final EIS has already been accepted for a development, including one accepted before June 21, 2004,\* then a subsequent project master plan shall not be required for the development.
- (b) For projects which involve a significant zone change, an environmental assessment shall be submitted to the department of planning and permitting. Any development or phase of a development which has already been assessed under the National Environmental Policy Act, HRS Chapter 343, ROH Chapter 25, or this article, and for which a FONSI has been filed or a required EIS has been accepted, shall not be subject to further EA or EIS requirements under this chapter.
  - (c) The environmental assessment will be reviewed by the department of planning and permitting. Based on review of the environmental assessment, the director will determine whether an environmental impact statement will be required or whether a FONSI may be issued.
  - (d) Zone changes shall be processed in accordance with this section, Section 5.5 of the Primary Urban Center development plan, and all applicable requirements under ROH Chapter 21.
- (1990 Code, Ch. 24, Art. 2, § 24-2.7) (Added by Ord. 04-14)

***Editor's note:***

*\* "June 21, 2004" is substituted for "the effective date of this ordinance."*

**§ 24-2.8 Review of development and other applications.**

The review of applications for zone changes and other development approvals will be guided by the vision of the Primary Urban Center development plan. Decisions on all proposed developments shall be based on the extent to which the project enabled by the development approval supports the policies, principles, and guidelines of the Primary Urban Center development plan.

The director of planning and permitting may review other applications for improvements to land to help the responsible agency determine whether a proposed improvement supports the policies, principles, and guidelines of the Primary Urban Center development plan.

(1990 Code, Ch. 24, Art. 2, § 24-2.8) (Added by Ord. 04-14)



**§ 24-2.9 Annual capital improvement program review.**

Annually, the director of planning and permitting shall work jointly with the director of budget and fiscal services and the applicable city agencies to review all projects in the city's capital improvement program and budget for compliance and consistency with the general plan, the Primary Urban Center development plan and other development and sustainable communities plans, any applicable special area plan provisions, and appropriate functional plans. The director will prepare a written report of findings to be submitted to the council in accordance with Charter § 6-903.

(1990 Code, Ch. 24, Art. 2, § 24-2.9) (Added by Ord. 04-14)

**§ 24-2.10 Five-year review.**

- (a) The department of planning and permitting shall conduct a comprehensive review of the Primary Urban Center development plan every five years after June 21, 2004\* and shall report its findings and recommended revisions to the city council.
- (b) The Primary Urban Center development plan shall be evaluated to assess the appropriateness of the plan's regional vision, policies, design principles and guidelines, and implementing actions, as well as its consistency to the general plan.
- (c) Nothing in this section shall be construed as prohibiting the processing of a revision to the Primary Urban Center development plan in accordance with the Charter.

(1990 Code, Ch. 24, Art. 2, § 24-2.10) (Added by Ord. 04-14)

***Editor's note:***

\* "June 21, 2004" is substituted for "the effective date of this ordinance."

**§ 24-2.11 Biennial report.**

In addition to meeting the requirements of the Charter § 6-1510.4, the biennial report of the department of planning and permitting shall also address the city's achievements and progress in fulfilling the vision of the Primary Urban Center development plan.

(1990 Code, Ch. 24, Art. 2, § 24-2.11) (Added by Ord. 04-14)

**§ 24-2.12 Authority.**

Nothing in this article shall be construed as an abridgement or delegation of the responsibility of the director, or of the inherent legislative power of the city council, to review or revise the Primary Urban Center development plan pursuant to the Charter and the above procedures.

(1990 Code, Ch. 24, Art. 2, § 24-2.12) (Added by Ord. 04-14)

**§ 24-2.13 Severability.**

If any provision of this article or the application thereof to any person, or property, or circumstances is held invalid, such invalidity shall not affect other provisions or applications of this article which can be given effect



without the invalid provision or application, and to this end the provisions of this article are declared to be severable.

(1990 Code, Ch. 24, Art. 2, § 24-2.13) (Added by Ord. 04-14)

**§ 24-2.14 Conflicting provisions.**

This article shall, with respect to the Primary Urban Center development plan area, prevail should there be any conflict with the common provisions or any other provisions under Chapter 24.

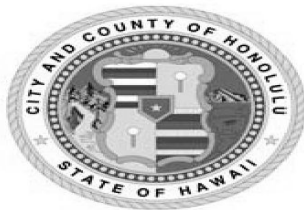
(1990 Code, Ch. 24, Art. 2, § 24-2.14) (Added by Ord. 04-14)





# PRIMARY URBAN CENTER DEVELOPMENT PLAN

Exhibit A4, May 2004



Department of Planning and Permitting  
City and County of Honolulu  
Jeremy Harris, Mayor

City Clerk, Eff. Date: 6-21-04



## **Honolulu - Land Use**



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## Primary Urban Center Development Plan

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## **Honolulu - Land Use**



## Preface

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The *Primary Urban Center Development Plan* has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes. It is one of a set of eight community-oriented plans intended to help guide public policy, investment, and decision-making through the 2025-planning horizon. Each plan addresses one of eight geographic planning regions on Oahu, responding to the specific conditions and community values of each region.

Two of the eight planning regions, Ewa and the Primary Urban Center (PUC), are the areas to which major growth in population and economic activity will be directed over the next twenty years and beyond. The plans for these regions will continue to be titled “Development Plans,” and will serve as the policy guides for the development decisions and actions required to support that growth.

The remaining six planning regions are envisioned to remain relatively stable. The plans for these regions are titled “*Sustainable Communities Plans*” to appropriately indicate the intent of the plans to serve as policy guides for public actions that support existing populations, and maintain and enhance the region’s ability to sustain their unique character and lifestyle.

### THE DEVELOPMENT PLAN PROCESS

This document is the culmination of the Charter-mandated development plan revision effort led by the City and County of Honolulu’s department of planning and permitting. This effort was comprised of a process that encouraged and enabled involvement from the region’s neighborhood boards, community associations, business leaders, private landowners and area residents.

In its final form, the Plan incorporates input received from public outreach, review, and comment received through a variety of formats since 1996.

### LAND USE PLANNING AND MANAGEMENT IN HONOLULU

The City and County of Honolulu guides and directs land use and growth through a three-tier system of objectives, policies, planning principles, guidelines, and regulations. The **General Plan** forms the first tier of this system. First adopted by resolution in 1977, the General Plan is a relatively brief document, consisting primarily of one-sentence statements of objectives and policies. It has been amended several times, but the basic objectives and policies set forth in the 1977 Plan remain intact.

The second tier of the system is formed by the **Development Plans and Sustainable Community Plans** (hereinafter referred to as “Development Plans” for simplicity), which are adopted and revised by ordinance. These plans address eight geographic regions of the island, including the PUC, Central Oahu, Ewa, Waianae, North Shore, Koolauloa, Koolaupoko and East Honolulu. Under the current revision program, the PUC and Ewa retain the title “Development Plan,” while the other regions are now referred to as “*Sustainable Community Plans*” to reflect their policy intent. The map on the following page illustrates these planning regions (Figure P.1).

The third tier of the system is composed of the **implementing ordinances and regulations**, including the Land Use Ordinance (Honolulu’s zoning code) and the City’s Capital Improvement Program. Mandated by the City Charter, these ordinances constitute the principal means for implementing the City’s plans. These ordinances are required to be consistent with the General Plan, the Development Plans (or *Sustainable Communities Plans*), and each other.



In addition to these three Charter-mandated tiers, the development plans are supplemented by two planning mechanisms that are not required by the Charter: the functional planning process and special area planning. Functional planning activities, some of which are mandated by state or federal regulations, provide long-range guidance for the development of public facilities such as the water system, wastewater disposal, and transportation. Special area plans are intended to give specific guidance for neighborhoods, communities, and specialized resources.

#### **AUTHORITY OF THE DEVELOPMENT PLANS AND SUSTAINABLE COMMUNITIES PLANS**

The authority of the Development Plans is derived from the City Charter, which mandates preparation of a General Plan and development plans to guide “the development and improvement of the city.” Together with the General Plan, the development plans provide a policy context for the land use and budgetary actions of the City. This is the authority the originally adopted Development Plans carried, and it remains unchanged in the revised Plan presented in this document.

The Charter provides that “public improvement projects and subdivision and zoning ordinances shall be consistent with the development plan for that area.” Although the development plans are not themselves regulatory, they “regulate the regulators.” They are policy tools and are to be used, in conjunction with the programs and budgets of the City, to accomplish the objectives of the City and as guides for the decisions made in the private sector.

#### **WHY THE DEVELOPMENT PLANS HAVE BEEN REVISED**

In 1992, the City Charter Commission recommended, and the voters of Honolulu adopted, amendments to the City Charter. Chief among its findings, the Charter Commission concluded that the development plans were overly detailed and had engendered processes that duplicated the zoning process. To eliminate this unnecessary duplication, the 1992 Charter amendments changed the definition of development plans from “relatively detailed plans” to “conceptual schemes.”

The 1992 Charter amendments established that the purpose of the development plans is to provide:

- “Priorities ... (for the) coordination of major development activities”; and
- Sufficient description of the “desired urban character and the significant natural, scenic and cultural resources ... to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions.”

In response to the 1992 Charter amendments, the planning and permitting department launched a thorough review of the development plans. The goal of that review was the revision of all eight of the development plans to bring them into conformance with the Charter-mandated conceptual orientation. The revised plan presented in this document conforms to that mandate.



**FIGURE P.1: DEVELOPMENT PLAN AND SUSTAINABLE COMMUNITIES PLAN AREAS FOR OAHU**





## **Honolulu - Land Use**



## Executive Summary

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This plan, which is incorporated into Ordinance 04-14 by reference, is organized in five chapters and an appendix, as follows:

- Chapter 1: *The Role of the Primary Urban Center in Oahu's Development Pattern* defines the region's role and identity within the overall framework of islandwide planning and land management.
- Chapter 2: *The Vision for the PUC's Future* summarizes the community's vision for the future of the region and lists important elements of that vision.
- Chapter 3: *Land Use and Transportation* presents the Plan's core policies, and provides policy guidance for the region's various land use elements.
- Chapter 4: *Infrastructure and Public Facilities* outlines policies, principles, and actions needed to support the land use policies of Chapter 3.
- Chapter 5: *Implementation* addresses needs for carrying out provisions outlined by the Plan.

The following summary provides an overview to the vision and policies of the Plan.

### **CHAPTER 1: THE ROLE OF THE PRIMARY URBAN CENTER IN OAHU'S DEVELOPMENT PATTERN**

This chapter defines the role and identity of the Primary Urban Center (PUC) within the overall framework of islandwide planning and land management. Consistent with the provisions of the General Plan, the PUC is expected to accommodate a significant proportion of Oahu's projected growth in residential population and jobs during the 20-year horizon of this Plan.

### **CHAPTER 2: THE VISION FOR THE PUC'S FUTURE**

The Vision for the PUC describes the Honolulu of 2025. The Vision emphasizes retaining the qualities that attract both residents and visitors, while encouraging growth and redevelopment to accommodate the projected increases in jobs and residential population. The key elements of the vision reflect the size and importance of the PUC:

- Honolulu's natural, cultural, and scenic resources are protected and enhanced.
- Livable neighborhoods have business districts, parks and plazas, and walkable streets.
- The PUC offers in-town housing choices for people of all ages and incomes.
- Honolulu is the Pacific's leading city and travel destination.
- A balanced transportation system provides excellent mobility.

### **CHAPTER 3: LAND USE AND TRANSPORTATION**

Chapter 3 describes the policies and guidelines intended to promote and implement the Key Elements of the Vision Statement. The policies and guidelines are organized around the Key Elements to maintain a holistic focus on the Plan's vision and to encourage an integrated approach to implementation. A summary of the policies is presented below.



### Protecting and Enhancing Natural, Cultural, and Scenic Resources

Natural, cultural, and scenic resources provide the context for the PUC and provide its unique identity as a world-class city in a spectacular Pacific island setting. They create the city's scenic backdrop, provide a balance to its buildings and homes, and define the unique settings for the PUC's many neighborhoods and districts. Policies to protect and enhance these resources include:

- **Preserve historic and cultural sites:** Special emphasis should be placed on sites and associated settings that are unique, of special significance, or are in good condition.
- **Preserve and protect natural resource and constraint areas:** Establish an urban community boundary to define urban development and protect areas outside the boundary for their open space, scenic, and resource values.
- **Preserve panoramic views of natural landmarks and the urban skyline:** This includes important vistas and focused views of significant natural and urban features and skyline profiles that make up or frame the PUC from publicly accessible places.
- **Improve access to shoreline and mountain areas:** This includes continuous public access along Oahu's southern shoreline as well as access to its *mauka* natural environments and features.
- **Develop stream greenbelts:** Keep or create *mauka-makai* connections and views up and down important streams and create public walkways where possible and appropriate.
- **Provide parks and active recreation areas:** Create or strengthen parks, plazas, and other conveniences throughout the PUC, especially in more populated areas as a balance to the built environment, for recreation, social interaction, and leisure interludes.

### CULTIVATING LIVABLE NEIGHBORHOODS

Neighborhoods and districts throughout the PUC where people live, work, and play should be actively supported through neighborhood planning, public policies, regulations, and investment to enhance their attractiveness as places that are safe, comfortable, convenient, and attractive. Plan policies for promoting these conditions are:

- **Develop a system for collaborative neighborhood planning:** Refine and further develop a stakeholder-based process for continuing community-based neighborhood planning for areas requiring this attention.
- **Cultivate existing and new "neighborhood centers":** Develop neighborhood centers as the principal places for people in a neighborhood to gather, shop, dine, or play, and to provide a source of community identity.
- **Promote mixed land uses:** Encourage compatible mixtures of land uses for in-town PUC neighborhoods and districts to support a variety of urban lifestyle choices and to create vibrant and convenient neighborhoods.
- **Create parks that draw people and activity:** Develop parks that invite people and promote positive social interaction and activity.
- **Make streets "pedestrian-friendly":** Create inviting and attractive streetside environments that support and enhance convenient and safe pedestrian use.

### IN-TOWN HOUSING CHOICES

While other vision elements address the livability of communities, this element emphasizes the need to provide residential choices for in-town (urban) living that are affordable and meet the lifestyle needs and preferences of different population groups. Policies for housing options along the PUC's vibrant coastal plain include:



- **Promote people-scaled apartment and townhouse dwellings in low- or mid-rise buildings oriented to the street:** This policy encourages residential buildings that are modest in height and have ground-floor shopping and dining opportunities to create pedestrian-oriented neighborhoods that satisfy a range of lifestyle needs conveniently.
- **Improve the feasibility of redeveloping small lots:** Encourage housing variety and affordability by removing barriers for small-scale townhouse and low-rise apartment development on smaller apartment-zoned lots.
- **Reduce costs for apartment homes:** Promote affordable housing choices consistent with creating livable communities by reducing certain construction and development-related costs.
- **Provide adequate schools and parks for in-town neighborhoods:** Conveniently located schools and parks that can be reached safely are needed to meet the needs of young, active families.
- **Expand the capacity of infrastructure, including water supply, sewers, and storm drains:** This policy calls for government action and leadership in creating adequate infrastructure to meet present and future demands in order to support the strengthening or creation of livable in-town communities.
- **Preserve and expand the current inventory of affordable rental housing units:** The City should assure that the current inventory of affordable rental units, whether owned by the City or not, is preserved and retained as affordable, and that the inventory of affordable rental units is expanded as needed by the community.
- **Support the retention, rehabilitation, and improvement of older, low-rent apartment buildings:** Maintain, rehabilitate, and improve older apartment buildings to retain existing housing stock as viable in-town housing choices.
- **Provide for special needs housing:** Allow housing for people with special needs and promote their integration into the larger PUC community.
- **Provide incentives and cost savings for affordable housing:** This policy promotes exemptions from regulations, on a case-by-case basis, to make “affordable” housing available to those needing it.
- **Provide for high-density housing options in mixed-use developments around transit stations.** This type of “transit-oriented development” facilitates transit use and allows for increased densities without generating increased vehicular congestion.

## THE PACIFIC’S LEADING CITY

The Plan recognizes the PUC as an economic center of importance to both Oahu and the State of Hawaii, and envisions Honolulu to be “the Pacific’s leading city and travel destination.” The following are key policies to help make this happen.

- **Create public open space along the Pearl Harbor waterfront and strengthen the physical and visual connections between the urban center and the water:** This recognizes the waterfront as a principal element in the PUC’s setting and as an organizing reference point for the city, and supports development of an economic and social asset for the surrounding community.
- **Redevelop the Downtown/Iwilei waterfront:** This policy proposes to increase visual and physical access to the waterfront by re-routing traffic away from Nimitz Highway and introducing commercial activities such as restaurants, shops, offices, and entertainment, low to medium-rise residences, and areas capable of hosting recreational activities.
- **Stimulate the development of high technology and knowledge-based industries:** Attract high-technology businesses to Hawaii and provide in-town locations for them. Encourage investment in infrastructure within commercial buildings that will accommodate and attract high-technology and biotechnology businesses.



- **Develop and implement a plan for a vibrant and livable Waikiki:** This plan should address resident and visitor experiences, the street environment, the design of new buildings, and relationships with adjacent districts.
- **Support attractions that are of interest to both residents and visitors in the Ala Moana/Kakaako/Downtown corridor.** Develop commercial and cultural attractions and improvements to serve residents and visitor interests.
- **Provide opportunities for the development of visitor units in the Ala Moana/Kakaako/Downtown corridor:** Provide accommodation options for convention and business travelers conveniently located near downtown and the Hawaii Convention Center.
- **Provide opportunities for the development of village inns in existing commercial centers and allow bed and breakfast establishments in residential neighborhoods:** This policy encourages development of alternative visitor accommodations in contrast to the traditional resort enclaves of Waikiki.
- **Support continuation of military uses:** Support and coordinate with the military's long-range land planning activities to realize common employment, housing, and recreation goals.
- **Enhance Honolulu Harbor and harbor-related uses:** Reserve lands adjacent to the harbor for harbor-related uses.
- **Support industrial uses in Kalihi-Palama industrial districts:** Support existing mixed-usages in the industrial districts of Kalihi-Kai and Kapalama, as well as existing commercial uses along the Nimitz, Dillingham, King, Kalihi, and Waiakamilo corridors.
- **Define the role of town centers and promote a mixture of land uses in Aiea-Pearl City:** Strengthen the functions and latent identities of town centers in Pearl City, Aiea, Waimalu, and Halawa, and establish the Pearlridge area as a Pearl Harbor Regional Town Center.
- **Encourage the full use of existing private and public parking garages:** Encourage private parking garage owners to rent underused parking stalls within commercial buildings and large-scale residential projects.

## DEVELOP A BALANCED TRANSPORTATION SYSTEM

A pleasant and efficient balance of travel choices that provide timely and convenient access to destinations throughout the PUC is essential to protect the region's natural assets, enhance the livability of its communities, and support a world-class city. Policies to promote a balanced transportation system include:

- **Implement land use strategies to achieve a balanced transportation system:** To achieve community livability and enable transportation choices, land use strategies that support alternative travel modes such as walking, bicycling, and transit should be adopted and implemented.
- **Improve the public transit system, including development of a rapid transit component:** A convenient and efficient public transit system aids in maintaining traffic flows at an acceptable level for an attractive and successful urban setting. An effective public transit system for the PUC could be created with an east-west rapid transit route supplemented by effective links to the PUC's valley communities.
- **Implement Transportation Demand Management (TDM) strategies:** Employ management strategies that encourage alternative travel models.
- **Review existing plans and establish priorities for roads and road improvements:** Conduct a comprehensive classification of roadways to identify prospective improvements (e.g., automobile, transit, bikeways, pedestrian routes), and prioritize the implementation of such improvements.
- **Implement the Honolulu Bicycle Master Plan:** Institutionalize a policy that all streets designated for bicycle travel should be maintained to accommodate shared bicycle and automobile use.
- **Enhance and improve pedestrian mobility:** Create pedestrian districts, routes and a regional pedestrian network, and address pedestrian safety concerns.



- **Encourage the full use of existing private and public parking garages:** Encourage private parking garage owners to rent underused parking stalls within commercial buildings and large-scale residential projects.

## **CHAPTER 4: INFRASTRUCTURE AND PUBLIC FACILITIES**

This chapter addresses infrastructure and public facilities at the regional level, and identifies policies and planning principles to support the land use policies presented in Chapter 3. Functional areas include:

- Water Allocation and System Development
- Wastewater System
- Electrical Power
- Telecommunications Facilities
- Solid Waste
- Stormwater Systems
- School and Library Facilities
- Civic and Public Safety Facilities

## **CHAPTER 5: IMPLEMENTATION**

This chapter discusses the various actions that will be necessary to ensure timely implementation of the plan, including measures that will minimize disruption during the transition into the plan. Measures addressed by this chapter include changes to the zoning maps, the Land Use Ordinance, and various other regulatory codes and standards necessary to achieve required consistency with the Development Plan. This chapter also addresses proactive measures, such as the planning and construction of infrastructure improvements, functional planning, and the development of Special Area Plans. Implementation of the Plan will be monitored via comprehensive reviews conducted at five-year intervals.

## **APPENDIX A**

Appendix A consists of six conceptual maps and a glossary of land use designations used in the Plan. The conceptual maps (Map A.1, Significant Panoramic Views; Map A.2, Open Space Map; Map A.3, Land Use Key Map; Maps A.4, A.5 and A.6, Land Use Maps for PUC-West, PUC-Central and PUC-East) represent the vision elements and major land use and open space policies articulated in the Plan. The maps, which depict generalized categories or groups of land uses within the region, are intended to be illustrative of the Plan's text and are not parcel-specific.

## **APPENDIX B: IMPLEMENTATION STRATEGIES**

Appendix B offers potential strategies, or options, that could be used to carry out the policies and guidelines discussed in the Plan. The strategies are intended as a resource for the development of Special Area Plans and for revisions to the Land Use Ordinance.



## **Honolulu - Land Use**



# Chapter 1. The Role of the Primary Urban Center in Oahu's Development Pattern

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The *General Plan* and eight regional plans guide “the development and improvement of the City” as mandated by the Charter of the City and County of Honolulu. The *General Plan* is a relatively broad document, consisting primarily of one-sentence statements of “objectives” and “policies” that provide guidelines for shaping the future of Oahu. The two development plans and six sustainable communities plans cover eight geographical regions, encompassing the entire Island of Oahu.

The Primary Urban Center (PUC) extends from the core of historic downtown Honolulu to Pearl City in the west and Waialae-Kahala in the east. The undulating shorelines of East Mamala Bay and Pearl Harbor define the PUC's southern edge. To the north, the deep green of the Koolau Range frames the landscape. The busiest parts of the city lie along the coastal plain, while quieter residential communities cluster on ridges and in *mauka* valleys. The volcanic craters of Diamond Head, Punchbowl, and Aliamanu rise above the coastal plain.

The PUC is a lively, metropolitan city that is home to almost half the island's population and three-quarters of Oahu's jobs. At the turn of the millennium, the PUC is a mature urban center. While there are vacant lots, the PUC has no remaining “greenfields” – i.e., no large reservoir of open, developable land. The planning goal for the PUC is to enhance its livability while accommodating a moderate amount of growth.

As part of the City's overall strategy to “Keep the country, country” and to maintain a compact urban core, the *General Plan* directs most of the projected growth in residential population and jobs to the PUC and Ewa (the Secondary Urban Center), though some growth will also go to urban fringe areas such as Central Oahu. Objective C, Policy 1 of the *General Plan* states: “Facilitate the full development of the Primary Urban Center.” Proportionately, Ewa will have the greatest amount of growth. While the PUC is projected to gain both residents and jobs, the *General Plan* calls for the PUC's share of Oahu's population and employment to decline over the next 20 years.

The *Primary Urban Center Development Plan* (PUC DP) establishes policy to shape the growth and development of the PUC over the next 20 years. Chapter 2 sets forth an overall vision for the year 2025. Chapter 3 presents policies regarding land use and transportation. Chapter 4 sets policies for infrastructure and public facilities. Chapter 5 addresses implementation of the plan.

This update of the *PUC DP* reaffirms the region's role in Oahu's development pattern through the establishment of policies in the following areas:

- Natural, historic, cultural, and scenic resources;
- Parks and recreation areas;
- Lower- and higher-density residential neighborhoods;
- Commercial and visitor industry facilities;
- Military installations, transportation centers, and industrial areas;
- Design of streets and buildings;
- Neighborhood planning; and
- Transportation networks and systems.

The “Primary Urban Center” planning region is actually a large and diverse mix of neighborhoods, businesses, and industries, as well as health, education, and cultural centers. Each neighborhood or district has its own special



qualities as well as its own issues and opportunities. Some already have special area plans or special zoning districts, or both – e.g., the Chinatown Special District and the Punchbowl Special District. Other neighborhoods are in the process of creating long-range plans. In response to this diversity, the PUC Development Plan establishes broad regional policy and provides a foundation for more specific planning at the neighborhood level.



## Chapter 2: The Vision for the PUC's Future

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The vision for the future of the PUC looks forward to the Honolulu of 2025. It expresses the big ideas about what Honolulu will be in 20 years – our aspirations for the City of Honolulu. The vision provides a basis for the policies and guidelines discussed in Chapters 3 and 4.

The Primary Urban Center (PUC) stretches from Kahala to Pearl City. It is the capital of the State of Hawaii, the State's commercial and financial center, and the home of its premier educational and cultural institutions. It is the heart of Hawaii's economic, political, and cultural life. The value created in the PUC nourishes the entire State.

The **Key Elements** of the vision for the PUC reflect the size and importance of Honolulu and its lead role in the state's business:

- Honolulu's natural, cultural, and scenic resources are protected and enhanced.
- Livable neighborhoods have business districts, parks, plazas, and walkable streets.
- The PUC offers in-town housing choices for people of all ages and incomes.
- Honolulu is the Pacific's leading city and travel destination.
- A balanced transportation system provides excellent mobility for residents and visitors.

### 2.1 HONOLULU'S NATURAL, CULTURAL AND SCENIC RESOURCES ARE PROTECTED AND ENHANCED

The mountain lands and shorelines that frame the city are protected and preserved, as are the natural, cultural, and scenic areas and resources that lie within the urban area. Beaches and coastal waters, as well as historic sites and mountain lands, are actively managed and improved. Physical access to the mountains, the shoreline, streams, and other resources is assured and continually enhanced.

Within the city, the open space network links *mauka* lands and shorelines to parks and open spaces within the urban area. Regional, beach and nature parks, the larger district parks, major campuses, and golf courses provide green open space and recreational opportunities. The Civic Center, campuses and cemeteries also provide valuable open space. The public enjoys the Honolulu and Pearl Harbor waterfronts, with their promenades, bikeways, and opportunities for entertainment. Stream greenbelts, numerous bikeways, and pedestrian-friendly streets connect major parks and open spaces.

Culturally- and historically-important sites, landforms, and structures continue to be preserved and enhanced. Historic and cultural districts are improved and interpreted for visitors.

People enjoy the panoramic views of Honolulu's mountain ridges, craters, and coastlines from key vantage points. Within the city, view corridors are preserved through careful planning and design.

### 2.2 LIVABLE NEIGHBORHOODS HAVE BUSINESS DISTRICTS, PARKS AND PLAZAS, AND WALKABLE STREETS

The PUC is an interconnected network of vibrant, distinct neighborhoods. Each has qualities that make it a livable and enjoyable place to live, work, or play. The City and County of Honolulu supports an ongoing program of neighborhood planning and improvement.



Livable neighborhoods include business and community services, as well as residences. Key to livability is convenient access to work and to the many services and attractions found in an urban center. Rather than segregate residential from commercial uses, the goal is to integrate them in ways that provide greater convenience and bring activity to neighborhood streets.

Livable neighborhoods have centers where people meet. In some neighborhoods, the center is a business district. In others, it is a popular park that has sports activities. Some neighborhoods have more than one center. In neighborhood business districts, shaded sidewalks and district parking support small shops open to the street.

*Mauka* residential neighborhoods primarily consist of single-family homes and townhouses on the edges of the central city. They retain their historically residential character, with mostly one- and two-story buildings and plenty of yard space and trees. Shops, parks, and schools are located within walking or bicycling distance of most residents. Churches, schools, and other uses coexist harmoniously.

In-town residential neighborhoods offer the greatest amenities for urban living. Consisting mostly of apartment dwellings, these neighborhoods are closest to employment centers, universities, and cultural institutions. They are also close to grocery stores, shopping districts, and other government, health, and commercial services. Proximity to rapid transit lines gives residents mobility and makes it possible to live with fewer automobiles. Newer apartment buildings are typically four to six stories tall, with shops and services on the ground floor. Small parks, plazas, and “green streets” provide places for people to meet and for small children to play.



**FIGURE 2.1: VISION OF A LIVABLE NEIGHBORHOOD WITH MID-RISE APARTMENTS.** Illustrating the potential for a livable neighborhood in Kakaako, this photo-simulation shows new development on the blocks around Mother Waldron Park. Neighborhood families can walk to the water plaza and to stores from the surrounding apartment buildings. Shops and offices occupy the ground floor of each building, and parking is accessed from side streets.<sup>1</sup>

<sup>1</sup> To illustrate concepts discussed in community workshops, the Department of Planning and Permitting prepared several “before and after” photo-simulations showing new development of various sites. This “after” image is based on a photograph looking *makai* across Mother Waldron Park, with Cooke Street on the left intersecting Pohukaina Street. This and other illustrations are found in Chapter 3.



Shopping districts include “Main Street” corridors, shopping centers, and neighborhood business districts. Served by transit and district parking, businesses in older commercial districts are freed from individual parking requirements.

Livability is cultivated through collaborative planning that involves residents, businesses, and government at the neighborhood level. The City has adopted specific area plans for many PUC neighborhoods. The plans recognize and support diversity among the neighborhoods, enhance the special qualities of each neighborhood, and guide programmed improvements. City agencies work with the neighborhoods on an ongoing basis.

### **2.3 THE PUC OFFERS IN-TOWN HOUSING CHOICES FOR PEOPLE OF ALL AGES AND INCOMES**

More and more households are attracted to in-town residential neighborhoods because of the convenience, and amenities of the urban lifestyle. They include a growing number of elderly moving to smaller quarters but wanting to remain near their home neighborhoods. Young families are drawn to in-town neighborhoods with convenient elementary schools and parks. Living close to work is more popular than ever.

Mid-rise apartments and townhouses are the accommodation of choice because they are attractive, affordable and convenient. With storefronts and pedestrian entries facing the sidewalk, these buildings provide easy access to neighborhood shopping and services. Because they are similar in height and are generally built out to the sidewalk, they relate well to buildings around them and to the street. With street trees and a park or plaza nearby, these buildings form very desirable neighborhood environments.

Builders are enthusiastic about mid-rise apartments because they cost less to build than high-rise towers and they can be built in smaller increments on smaller lots. Because development is less expensive and involves less risk, apartment units can be sold and rented at affordable prices.

Older walk-up apartments are being repaired and rehabilitated. Preserving the large supply of lower-priced rental units makes living in the PUC affordable for all income groups. The State and City contribute to the supply by preserving or causing to be preserved the existing inventory of affordable rental units and by supporting housing for the elderly, other special needs groups, and low- to moderate-income households with grants, tax credits, and land use approvals.

### **2.4 HONOLULU IS THE PACIFIC’S LEADING CITY AND TRAVEL DESTINATION**

The PUC continues to be Oahu’s primary employment center and the center for many commercial, industrial, transportation, and government functions essential to the State of Hawaii.

An expanded Downtown continues to be the hub of government and financial activity. In Kakaako, the University of Hawaii Medical School is an internationally known research center. The adjoining biotechnology park houses the offices and laboratories of key American and overseas companies. A leading center in health research and technology development, the campus draws together researchers and medical innovators from the mainland United States, China, and Japan.

With ongoing redevelopment and improvement, Waikiki remains the State’s largest and most popular visitor destination. An ever-growing number of visitors are drawn to Honolulu for business reasons. Many organizations travel here for conferences and meetings at the City’s highly-rated Hawaii Convention Center. Newer hotels are located near the Convention Center and in Downtown. In addition, smaller hotels and inns are integrated into the



commercial districts of several PUC neighborhoods, where local restaurants and businesses benefit from visitor spending.



**FIGURE 2.2: VISION OF THE HONOLULU WATERFRONT.** In this vision of the future, Honolulu’s waterfront is transformed into a “people place”. By building a Sand Island-Kakaako bypass road, Nimitz Highway has been reduced in size and land has been recaptured for businesses and broad promenades next to the harbor.

Higher-spending vacationers are attracted to Oahu’s unique historic and cultural attractions. Many of these attractions are located in the PUC – particularly the Ala Moana/Kakaako/Downtown corridor, where public agencies and private companies provide visitor services and interpretation. Visitors and residents stroll the harbor-front promenade along Nimitz Boulevard. Since through-traffic destined for Kakaako and Waikiki uses the Sand Island Parkway, Nimitz Highway is transformed into an urban boulevard, with a landscaped median and broad sidewalks.

With the Kalihi Channel restored, Honolulu Harbor is able to accommodate today’s larger ships and increased commercial traffic with greater efficiency and safety. Expanded shore facilities handle growth in container freight, as well as port calls by international and interisland cruise ships.

Residents and visitors also enjoy the broad waterfront of Pearl Harbor’s East Loch. The historic OR&L bikeway and promenade links extensive parks, including Aiea Bay State Recreation Area, the new park at McGrew Point, and an expanded Neal S. Blaisdell Park. Restored historic sites on Ford Island, together with the U.S.S. Missouri and the U.S.S. Arizona Memorial, make Pearl Harbor the nation’s most important site for World War II history.

The PUC continues to be home to the U.S. Pacific Armed Forces and several military bases, including Hickam Air Force Base and the Navy facilities surrounding Pearl Harbor. The more intensive military activities are located on the *makai* side of Nimitz Highway and Kamehameha Highway, with lands on the *mauka* side reserved for housing and community services.



## 2.5 A BALANCED TRANSPORTATION SYSTEM PROVIDES MOBILITY

Honolulu's balanced transportation system provides excellent mobility for residents, workers, and visitors traveling throughout the PUC. Streets are engineered to accommodate automobiles along with transit vehicles, bicycles and pedestrians.

A fully built-out rapid transit system serves thousands of people every day. Its comfortable vehicles ride on priority routes, speeding travel across the central PUC. High-capacity vehicles travel east-west routes connecting Pearl City to Downtown, Waikiki, and the University of Hawaii. The system also speeds commuters from Ewa to the PUC without adding to congestion. An efficient hub-and-spoke bus system links neighborhoods to the main rapid transit lines. Community circulator routes (spokes) deliver riders to transit centers (hubs) where they transfer to high-service rapid transit routes. Connected to regional lines that serve outlying communities, rapid transit carries many residents to and from their workplaces in the PUC. During the day, many people hop on rapid transit to make in-town trips, finding it fast, reliable, convenient, and less expensive than driving and parking.

Using highly-developed intelligent transportation systems, State and City transportation agencies monitor and manage traffic flow. Efficient management allows optimum utilization of existing roadway capacity. On-board navigation equipment aids both transit vehicles and private automobiles to select the best-flowing routes.

Well-planned bicycle routes make commuting by bicycle safe and convenient. Using Bike-Friendly Route One, cyclists can traverse the PUC from Pearl City to Kahala. Bike routes also contribute to increased recreational bicycling as well.

The PUC is known for being a pedestrian-friendly place, where tree-lined sidewalks attract people to walk for health and pleasure. Regional pedestrian networks along streets and stream corridors connect neighborhoods and *mauka* areas in both the Honolulu and Pearl Harbor regions. In Waikiki, Kakaako, McCully-Moiliili, and other in-town neighborhoods, special pedestrian streets and districts connect residential blocks with parks and shopping areas. Streets with rapid transit system lines have shelters and specially-designed pedestrian crossings. Sidewalks and bus shelters are designed to assure that disabled individuals also have excellent mobility.



## **Honolulu - Land Use**



## Chapter 3: Land Use and Transportation

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To achieve the vision for 2025, the City must organize and direct its future actions in the key areas of land use and transportation. This chapter sets forth policies and guidelines organized according to the Key Elements of the Vision (Chapter 2).

### 3.1 PROTECTING AND ENHANCING NATURAL, CULTURAL AND SCENIC RESOURCES

The first Key Element, “Honolulu’s natural, cultural, and scenic resources are protected and enhanced,” addresses the natural and cultural setting of the Primary Urban Center (PUC), the need for natural areas and open space, and the concept of an open space network that pervades urbanized areas and links them to the mountains and the shoreline.

**Section 3.1.1** examines the existing conditions and issues that affect these “heritage” resources and the open space network. **Sections 3.1.2** and **3.1.3** set forth policies and guidelines, and **Section 3.1.4** discusses the relationship of the policies to the maps.

#### 3.1.1 Existing Conditions, Issues and Trends

The mountains and shoreline that define the *mauka* and *makai* edges of the PUC’s continuous urban corridor are the dominant elements of the open space system. Within the corridor itself, the open space system consists of volcanic craters, streams, and other water bodies, as well as the larger parks and campuses:

***Mauka* edge:** The Koolau Mountain Range and its undeveloped foothills and slopes.

- ***Makai* edge:** The shorelines and waters of the Pacific Ocean, Pearl Harbor (East Loch), Keehi Lagoon, Kapalama Basin, Honolulu Harbor, Kewalo Basin, and Ala Wai Harbor.
- **Volcanic craters:** Leahi (Diamond Head), Puowaina (Punchbowl) and Aliamanu; also, a minor crater remnant in Kaimuki.
- **Perennial streams:** Kapakahi Stream, Palolo Stream, Manoa Stream, Makiki Stream, Nuuanu Stream, Kalihi Stream, Kapalama Stream, Moanalua Stream, Halawa Stream, Aiea Stream, Kalauao Stream, Waimalu Stream and Waiawa Stream and their tributaries.
- **Other important water bodies and wetlands:** Kalauao Springs (watercress farm in Pearlridge area), Salt Lake, Nuuanu Reservoir and Ala Wai Canal.
- **Major parks and campuses:** Regional, beach, and large district parks; golf courses; large cemeteries; college and high school campuses; and the Civic Center.

These elements combine to create the extraordinary scenic setting that Hawaii’s – and the Pacific Basin’s – greatest city enjoys. Residents and visitors enjoy striking vistas from many vantage points and convenient physical access to beaches, coastal waters, hiking trails, and other recreational spots. Open space features are an integral part of daily urban life, not only for their scenic quality and recreational value, but also because they act as directional reference points when traveling through the city. For these reasons, it is very important that they remain visible and accessible.

In future years, as development in the PUC continues and obsolete buildings are replaced, the urban form can be shaped to preserve and enhance the natural setting and to improve visual and physical access to open spaces.



### 3.1.1.1 Natural Resource and Development Constraint Areas

Most areas within the PUC that have high natural resource value – such as habitats for native species, beaches, and water bodies – or that have unfavorable characteristics for urban development – such as steep slopes and unstable soils – are located within the State Conservation District and protected from urban encroachment. In general, protected areas include the mountains, the coastal waters, and a few places within the State Urban District, such as Diamond Head, Punchbowl, Ala Wai Canal, and Aliamanu/Salt Lake.

#### URBAN STREAMS AND WETLANDS

The State Urban District includes smaller-scale natural resource elements, such as stream segments and wetlands. The few remaining wetlands in the PUC are located near Pearl Harbor and are protected by Federal regulations. Most of the urban stream channels have been hardened with concrete and stone structures, and their banks are often devoid of vegetation. The degree of modification tends to be greater in downstream segments. Many of the upstream segments that run through single-family residential neighborhoods are still in relatively natural condition.

The purpose of stream modifications was to stabilize banks, provide flood protection for adjacent properties, or accommodate bridges. While it is typically not feasible to return stream channels to their original state, it is possible in many cases to reintroduce natural elements such as shade trees along the banks, rip-rap lining and V-notched or unlined channel bottoms to the stream environment. Such measures mitigate impacts on biological habitat and improve the aesthetic quality and recreational value of urban streams. (See additional discussion in **Section 3.1.1.3, Stream Corridors**.)

#### STEEP SLOPES AND UNSTABLE SOILS

Development on steep slopes or unstable soils could result in adverse visual impacts or hazardous conditions. Most of the vacant lands in the State Urban District with these characteristics are located in valley and hillside neighborhoods. Where hillside locations have stable soil material, the primary impact is aesthetic, since structures built along slopes tend to be visually prominent and can interrupt the silhouette of the natural ridgeline when viewed from below. Building on the lower slopes of valley walls can not only have a visual impact, but can also be potentially hazardous. Where these valley locations have deposits of unstable soils, slow-moving landslides can cause property damage, prompting claims against the City – as has happened in both Manoa and Moanalua Valleys.

Incremental build-out of hillsides and lower valley slopes can also affect both natural and urbanized drainage systems. Increased lot coverage by larger buildings and more extensive paving increases the volume and rate of stormwater discharge. This problem is exacerbated in the *mauka* reaches of the valleys and hillsides, where rainfall is higher.

Over the long term, the cumulative impact of greater lot coverage threatens to erode or convert natural stream banks downstream by requiring expensive, aesthetically and ecologically undesirable structural hardening of the drainage channel or by exceeding the capacity of the drainage system, resulting in flood conditions. To prevent inappropriate development, hillside lands should be placed in preservation or low-density residential zoning districts. Such lands should also be subject to stricter development standards – such as maximum lot coverage and structural stability – than those that apply to level land.



Where hillsides and drainage channels have already been adversely affected by inappropriate development, remediation should be pursued by removing or repairing damaged or threatened structures on unstable slopes and selectively modifying drainage channels to introduce more natural elements (e.g., streamside trees, rip-rap lining, and V-notched or unlined channel bottoms).

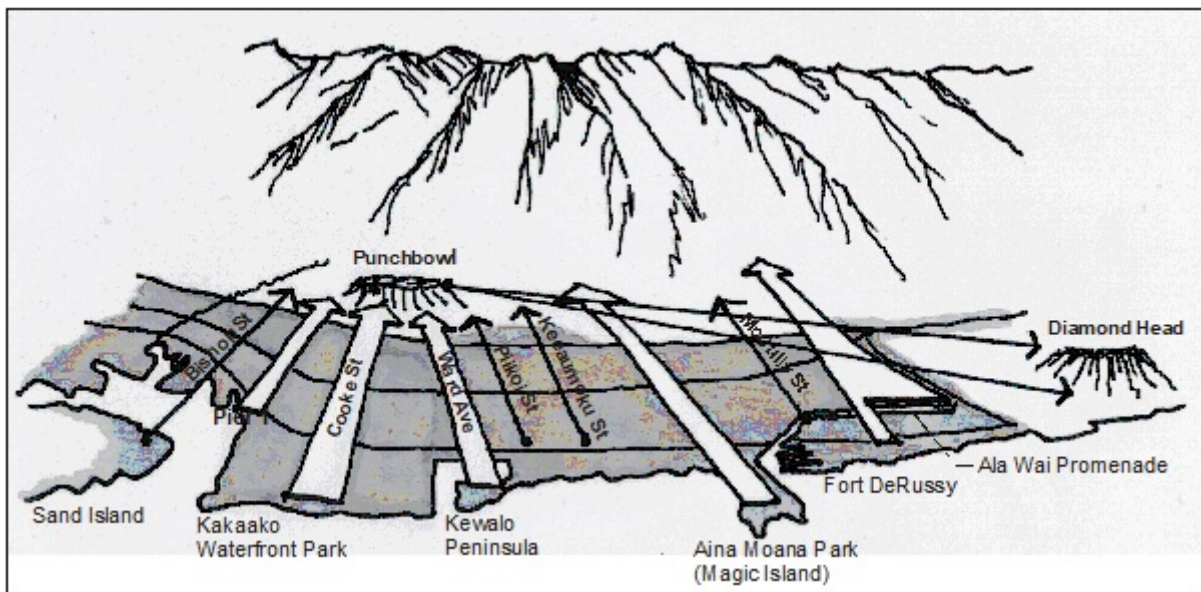
### 3.1.1.2 Scenic Views

#### PANORAMIC VIEWS OF NATURAL FEATURES AND LANDMARKS

Panoramic views are broad vistas from distant vantage points. **Map A.1, Significant Panoramic Views**, depicts the vantage points and orientation of major panoramic views of the following view objects within the PUC:

- The Koolau and Waianae Mountain Ranges and their foothills (notably, Red Hill and Puu Ualakaa, or Round Top);
- The Pacific Ocean, Pearl Harbor's East Loch, Ford Island, Honolulu Harbor, Keehi Lagoon and Kewalo Basin, and their respective shorelines; and
- The craters of Leahi (Diamond Head), Puowaina (Punchbowl) and Aliamanu.

In some areas of the PUC – especially within central Honolulu – building height limits have been adopted specifically to protect viewplanes. Nevertheless, there are public places along the shoreline – such as Ala Moana Beach Park, Kakaako Waterfront Park, and Kewalo Basin – and along the Ala Wai Canal where panoramic *mauka* views of the Koolau Mountain Range and Punchbowl are gradually diminishing as high-rise buildings in the Kakaako, Ala Moana, and McCully-Moiliili districts are developed to the height limits that are allowed there. Distant views of the Waianae Mountain Range and Pearl Harbor are less likely to be obstructed by intervening high-rise buildings, but there is no explicit regulatory mechanism to prevent the potential for loss of these views.



**FIGURE 3.1: VIEW CORRIDORS.** A diagram of *mauka* views from the shoreline and the view toward Diamond Head from Punchbowl Lookout.



## PANORAMIC VIEWS OF THE URBAN SKYLINE

Panoramic views of the urban skyline between Diamond Head and Pearl Harbor's Middle Loch – from arrival points by air or sea, from above the Koolaus, and from outlying areas to the east and west – reveal the relationship between the city and its open space elements. The skyline is an important aspect of the city's image. It establishes a distinctive identity for Honolulu, defines subdistricts within it, and provides a directional orientation.

The lateral extent of Honolulu's skyline is defined by Nuuanu Stream on the west and Kapiolani Park and Diamond Head on the east. At present, Downtown, with its taller profile and denser clustering of buildings emphasized by the low-rise profiles of the Chinatown and Hawaii Capitol Special Districts, is a visually prominent element of the skyline. Recent high-rise developments in Kakaako have begun to weaken this prominence. Kakaako's development regulations allow buildings that are as tall or taller as those Downtown, but the towers are not as closely spaced. As a result, a high-rise "picket fence" is emerging on the Kakaako skyline, making the distinction between Downtown and other districts less clear.

Over the next few decades, there is not likely to be significant change to the western and eastern ends of the skyline, which are the respective locations of Downtown and Waikiki. In the Downtown financial district, there are few remaining sites available for new high-rises. In Waikiki, most of the high-rise buildings exceed present building height and density controls. While current regulations allow such "nonconforming" buildings to be redeveloped under limited circumstances, this will not result in appreciable changes to distant views of the skyline.

The Kakaako and Ala Moana districts, recognized as areas with substantial capacity for future urban development, are located in the central portion of the skyline. It is in these districts, as well as in McCully-Moiliili, where lower building height limits would not only help maintain the visual prominence of the Downtown skyline, but also promote a feasible and desirable building form.

The skyline in the western portion of the PUC is less pronounced than in Honolulu. There is a cluster of high-rise buildings in the Pearlridge vicinity and an anomalous pair of apartment towers at Manana. Otherwise, buildings have a low profile. Redevelopment could affect the skyline in this area unless lower building height limits are established. It is desirable to keep the building profile low so that the Pearl Harbor skyline will continue to be visually subordinate to the Honolulu skyline and its mountain backdrop, which is lower than the Koolau ridgeline behind Honolulu.

## MAUKA-MAKAI STREET CORRIDORS

Within the city, there are framed views – or view "corridors" – of the mountains and the shoreline along streets that are aligned in the *mauka-makai* orientation. The width of the street, combined with building setback requirements, create and retain these views. Unfortunately, streetscape elements, such as overhead utility lines and signage, significantly diminish the quality of the view in many instances.

Views of the mountains or shoreline along the street are important directional reference points for pedestrians and motorists, particularly for those who are not familiar with the City's street system or urban landmarks. The undergrounding of utility lines not only enhances the visibility of the mountain backdrop, but also removes obstacles (i.e., utility poles) from the sidewalk and allows street tree canopies to spread without interference. It may also improve utility system reliability in certain circumstances.



Due to the cost and disruptive effects of underground installation, priority should be given to burying utility lines on the major collector streets and where *mauka-makai* view corridors are indicated in **Figure 3.1**. Preferably, undergrounding would occur concurrently with other major construction within the right-of-way.

### 3.1.1.3 Access to the Shoreline, Mountains and Streams

#### STREAM CORRIDORS

Portions of important streams that flow through Honolulu – Manoa Stream, Nuuanu Stream, Moanalua Stream, and Kapalama Stream – have landscaped greenbelts or parallel pathways or both, already in place. Extension and improvement of these pathways or greenbelts would complement efforts to reintroduce natural elements to the stream environment and would make them more useful components of the open space network for recreational use and short walking trips.



**FIGURE 3.2. STREAM CORRIDORS.** Stream corridors running through the Primary Urban Center offer potential for water recreation, such as outrigger canoe paddling, as well as for bicycle and pedestrian paths along the stream banks.

The design of greenbelts should vary along stream segments to respond to adjacent land uses and resolve security and maintenance issues. While a continuous *mauka-makai* pathway may not be achievable, priority should be given to the creation of streamside pathways where they would connect existing parks, hiking trails, and bikeways, or provide a shorter, safer pedestrian route between neighborhoods or major land uses. Examples include Manoa Stream from Ala Wai Canal to Date Street and from the campus of University of Hawaii (UH) at Manoa to Woodlawn Drive.



## SHORELINE ACCESS

Public access to the shoreline, which is located at intervals of one-quarter mile or less, is adequately provided. Two beach right-of-ways, one from Paoa Place and one from Kalia Road, increase access to Waikiki beaches. East of Diamond Head in the residential neighborhood of Kahala, shoreline access is available from Kahala Beach Park, six pedestrian rights-of-way along Kahala Avenue, and a right-of-way from Kaikoo Place.

From Nuuanu Stream westward to Aiea Bay, access to the shoreline is largely preempted or constrained by Honolulu Harbor, the Honolulu International Airport, Hickam Air Force Base, and Pearl Harbor Naval Base. The Keehi Lagoon shoreline will receive greater visual exposure with the development of the proposed Sand Island Parkway as a new through route from the Airport to Waikiki. The State of Hawaii Department of Transportation (DOT) envisions the development of Keehi Lagoon and its shoreline, including portions of Airport land, for recreational small-boat marinas and for viewing and competing in canoe and kayak paddling races. The State also proposes the development of a commercial “fishing village” at Pier 38, which would attract more people to a portion of the maritime industrial zone of Honolulu Harbor that presently receives little public exposure.

The need to enhance shoreline access is greatest in the more heavily developed portions of Honolulu and Pearl City, which are presently the centers of urban life and are expected to play an even more vital role in the future.

Within Honolulu, a continuous pedestrian route from Diamond Head to Downtown could be achieved by developing a beachfront promenade in Waikiki and by creating other relatively short connections between the chain of parks and promenades that now exist along the shoreline.

Lateral access in Waikiki would be more useful and feasible than additional pedestrian connections from Kalakaua Avenue and Kalia Road. Significant sections of a continuous beachfront walkway are already in place fronting Fort DeRussy, Halekulani Hotel, Sheraton Waikiki Hotel, and portions of Hilton Hawaiian Village. The public sector should assume ultimate responsibility for the maintenance and security of such a highly public area because continuous, safe access for pedestrians and wheelchairs along the beach serves a clear public purpose.

Waterfront access should be a key component of any plan to redevelop Honolulu Harbor and the Kakaako district, revitalize Chinatown, and reconnect both Chinatown and Downtown to the historic waterfront. While the waterfront is within short walking distance of activity centers in Chinatown, Downtown, and, increasingly, Kakaako, the design and operation of Ala Moana Boulevard – and especially Nimitz Highway – discourage pedestrians from crossing these thoroughfares. In addition, links need to be developed – especially in Kakaako – to fill gaps in the pedestrian route along the waterfront.

Within the Aiea-Pearl City area, continuous lateral public access to the Pearl Harbor shoreline would be greatly enhanced by acquiring lands *makai* of the OR&L right-of-way between Neal S. Blaisdell Park and Aiea Bay State Park, as identified in the *Pearl Harbor Historic Trail Master Plan*. While portions of this right-of-way are contiguous to the shoreline, intervening private lands and buildings at other points impair physical or visual access to Pearl Harbor.

## MOUNTAIN ACCESS

There are several points of public access to forested mountain areas within the PUC, and they are fairly well distributed. Access to many of these trails is from State parks, where public parking and rest rooms are available. At other trailheads, parking is usually quite limited, and rest rooms or other amenities are not available.



The State also maintains lookouts at the summits of Nuuanu Pali and Puu Ualakaa (Round Top) for enjoying scenic vistas toward the shoreline. Both of these State parks, like most other State park facilities, provide picnic areas, potable water, and public rest rooms, and prohibit overnight camping.

#### 3.1.1.4 Public Parks and Recreation Facilities

Public parks and outdoor recreational facilities fall into two general categories: (1) islandwide and regional parks; and (2) community-based parks. Islandwide, regional, district parks and other major open spaces are shown in **Map A.2, Open Space**.

All of the community-based parks are maintained, if not owned in fee, by the City and County of Honolulu. Many of the islandwide and regional facilities are under State or military jurisdiction, or are privately owned. Some of the private golf courses are not available for public play, but make a visual contribution to the open space system.

For the most part, community-based parks and recreation facilities in the PUC's *mauka* residential neighborhoods meet – or come close to meeting – the land-to-population standard. However, there is a shortage of comparable facilities in the more densely populated areas along the coastal plain, especially for organized sports and other active recreation. As a result, people from these areas must travel to use parks and recreation facilities in other neighborhoods.

Due to the shortage of parkland in densely populated neighborhoods, much of the available space in community-based parks and regional parks, such as Queen Kapiolani and Ala Moana, is dedicated to facilities for intensive, active recreation. This often compromises the aesthetic and recreational value of parks as places for quiet enjoyment of the outdoors.

The design and programming of parks and recreation areas for the more intensively urbanized areas requires careful planning. Acquisition of significant additional park space is constrained by high real estate values, the limited number of vacant parcels with favorable characteristics for recreation use, and the cost and practical difficulties of alternatives such as the use of air rights over highways. With limited land area and high-rise apartment buildings nearby, the light and noise generated by outdoor recreational activities can cause disturbances to residential neighbors. Unsupervised and unlighted parks can also attract crime and other problems associated with urban areas.

On the other hand, Honolulu's urban setting offers some advantages for expanding recreational opportunities in a number of ways:



**FIGURE 3.3: CHILDREN ENJOY NEW PLAY EQUIPMENT AT A HONOLULU PARK. Equipment like this provides exercise and entertainment for younger children, and is well suited to both large and small urban parks.**



- The City can enter into partnerships with the State Department of Education (DOE) and private, nonprofit organizations to jointly use, develop, or improve recreational facilities, including gymnasiums and other buildings designed for a variety of activities and programs.
- A large number of people can walk or ride transit to parks and recreation facilities, reducing the need for space-consuming parking lots and garages.
- The diversity of the population enables parks and recreational facilities to be designed and programmed for a variety of activities at different times of the day or simultaneously at different locations within a facility.
- The City's network of streets, shorelines, and streams can become linear extensions of parks by enhancing them with landscaping, special paving, and other features to support and promote recreational walking, jogging, and bicycling.

### **3.1.1.5 Other Urban Open Spaces**

#### **CEMETERIES**

Cemeteries, with their landscaped, park-like settings, are part of the open space network within an urban environment. The cemeteries that make the most significant contribution to the open space within the PUC, due to their size and high visibility from major thoroughfares and other urban areas, are shown on the Open Space Map (**Map A.2**).

#### **CAMPUSES**

The campuses of almost all of the PUC's private and public academic institutions contribute in some degree to the urban open space network. In addition, many other institutions such as churches and hospitals are situated on landscaped grounds that add to urban open space. The effect is often more pronounced when such campuses are adjacent to each other, creating an open space "cluster." Institutions with sizable and visible landscaped grounds include the University of Hawaii at Manoa, Punahou School and Chaminade College-Saint Louis School. The Open Space Map also shows the Civic Center, including the broad landscaped areas around the State Capitol, Honolulu Hale, Iolani Palace, and other government buildings, as a campus-type of open space.

#### **PLAZAS**

The PUC's commercial districts, particularly Downtown Honolulu, contain landscaped plazas, which are situated on private property, and are accessible to the public. The plazas were created primarily by zoning code provisions that offer floor area bonuses for the development of public open space. As attractive venues for public events, informal meetings, and quiet enjoyment, these plazas function as important elements of the urban open space system.

Successfully designed plazas typically include generous seating, shade, and exposure to commercial activity. Such spaces are like an outdoor room, an open space enclosed by buildings. The best-used public open spaces are similar to the plaza behind Downtown's Dillingham Transportation Building. This plaza is a true "outdoor room" contained by building walls on three sides with people entering from three different directions – from Queen Street, from the neighboring office towers on Alakea Street, and from Bishop Street through the Dillingham Building arcades. Many more people actively use this plaza than use the much larger open space around the State Library or the Honolulu Municipal Building.



### 3.1.2 POLICIES

Establish and maintain an integrated open space network throughout the PUC comprised of the following elements:

- **Preserve historic and cultural sites.** Preserve and protect sites that have high preservation value because of their good condition or unique features. Protection includes planning and design of adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity, and historic or cultural value, of the site. Retain, whenever possible, significant vistas associated with historic, natural, and man-made features. Allow adaptive reuse of historic buildings to serve a new function and/or enhance interpretive value without destroying the historic value of a site.
- **Preserve and protect natural resource and constraint areas.** Establish an Urban Community Boundary to define the area for urban development. Place large contiguous areas of natural resource and constraint areas designated for Preservation, including all lands within the State Conservation District, outside of the Urban Community Boundary.
- **Preserve panoramic views of natural landmarks and the urban skyline.** Preserve views of the Koolau and Waianae Mountain Ranges, Punchbowl, Diamond Head, Pearl Harbor, and other natural landmarks. Maintain important view corridors within and across urban Honolulu and keep Downtown as the most prominent feature of the urban skyline. Views along the Pearl Harbor shoreline and the Pearl Harbor Historic Trail toward the mountains, shoreline, significant landmarks, and adjacent communities should be created and maximized wherever possible and appropriate.
- **Improve access to shoreline and mountain areas.** Provide continuous lateral access along the Honolulu waterfront and around the East Loch of Pearl Harbor, where urban activity is most intense. Maintain access to mountain hiking trails and increase opportunities for nature education and camping.
- **Develop stream greenbelts.** Develop and maintain greenbelts and pathways along streams, especially those running from the mountains to the sea through central Honolulu, as visual and physical linkages between *mauka* and *makai* open spaces.
- **Provide parks and active recreation areas.** Develop and maintain parks and other outdoor public spaces in a manner that expands opportunities for both active and passive recreation. Increase and enhance recreational open space in the most densely settled parts of the PUC.

### 3.1.3 GUIDELINES

#### 3.1.3.1 Historic and Cultural Sites

- Preserve the architectural character, landscape setting, and visual context of historic landmarks through appropriate zoning standards and development controls, as necessary, and public outreach programs such as design guidelines for the maintenance, renovation or expansion of older dwellings.
- Preserve and enhance the significant historic and aesthetic features of institutional campuses and campus clusters through zoning permit reviews for campus expansions or modifications.

#### 3.1.3.2 *Mauka* Conservation Areas

- Prevent development on properties with average slopes of 40 percent or more, and on lands with slopes of 20 percent or more, where development of the site would have a significant adverse visual impact when viewed from parks, major public streets, and other public places.
- Maintain public access points and hiking trails on the slopes of the Koolau Range in the areas beyond the Urban Community Boundary, and improve amenities for hiking, camping and nature study.



- In Preservation areas, avoid disturbance to native species and prevent the visual intrusion of structures, including utility and telecommunications installations, when seen from below and from hiking trails.
- Ensure access for traditional and customary practices and gathering rights, consistent with the provisions of the Constitution of the State of Hawaii.

### 3.1.3.3 Urban Skyline and *Mauka-Makai* Views

- Maintain the visual prominence of important districts by allowing a greater height and massing of buildings, such as in the Downtown area.
- Apart from Downtown and other central Honolulu locations, promote mid-rise or low-rise scale for new buildings.
- Preserve the following panoramic views indicated schematically in **Figure 3.1** by establishing building height limits and setbacks that are based on viewplane analyses to determine the sight lines and desired view dimensions and characteristics:
  - From Ala Wai Canal Promenade toward the Koolau Range
  - From Ala Moana Beach Park toward the Koolau Range
  - From Kewalo Basin toward the Koolau Range and Punchbowl
  - From Kakaako Waterfront Park toward Punchbowl and the Koolau Range
  - From Punchbowl Lookout toward Diamond Head
- Preserve and enhance significant *mauka* or *makai* view corridors along major collector streets indicated in **Figure 3.1** through a combination of zoning controls and streetscape improvements.
- Increase line-of-sight opportunities towards Pearl Harbor – particularly the U.S.S. Missouri and the U.S.S. Arizona memorials.

### 3.1.3.4 *Makai* Access

- Provide continuous lateral shoreline access for pedestrians extending from Diamond Head to Nuuanu Stream, around Keehi Lagoon, and from Neal S. Blaisdell Park through Aiea Bay State Recreation Area.
  - Construct walkways along the Waikiki and Kakaako-Honolulu waterfronts.
  - Along the Pearl Harbor shoreline in Aiea and Pearl City, acquire privately owned properties and the Navy-owned McGrew Point *makai* of the Pearl Harbor bikeway for recreational use, or encourage complementary redevelopment with incentives for higher zoning in return for view corridors, extra open space, public amenities, and public access to the shoreline, or both.

### 3.1.3.5 Stream Greenways and Drainage

- Establish riparian zones for all streams to prevent the encroachment of buildings and structures – other than those for drainage, flood control, or recreational purposes – and to establish and enforce policies for the protection and enhancement of stream habitats and water quality.
- Develop streamside pathways to improve access to recreation sites and natural areas and provide safe, convenient pedestrian routes between neighborhoods. Stream segments to be considered for priority action include but are not limited to the following:
  - Aiea Stream: segment through former Aiea Sugar Mill site
  - Ala Wai Canal: both banks, entire length
  - Halawa Stream: segment near Aloha Stadium



- Kalauao Stream: from Kamehameha Highway to Pearl Harbor’s East Loch
- Kalihi Stream: segment *makai* of H-1 Freeway
- Kapalama Stream: segment *makai* of Kuakini Street
- Makiki Stream: segment *makai* of Nehoa Street
- Manoa/Palolo Streams: from Manoa Marketplace to Ala Wai Canal
- Moanalua Stream: segment near Moanalua Gardens
- Nuuanu Stream: from Kuakini Street to Honolulu Harbor
- Nuuanu Stream: from Kuakini Street *mauka* to Kapena Falls
- In developing drainage and flood control, seek to limit stormwater velocity and reduce the transport of sediment and pollutants to coastal waters.

#### 3.1.3.6 Parks and Recreational Open Spaces

- Recognizing that it is difficult to acquire additional park land in the PUC, develop innovative approaches to make optimum use of existing parks and recreation resources, such as:
  - Building partnerships between City, State and private, nonprofit organizations for joint use of facilities and complementary recreation programs.
  - Optimizing private sector contributions to open space through park dedication as properties are redeveloped.
  - Reassessing and reassigning, as appropriate, the use of existing park land.
- Promote linear connections in the recreational open space network by using existing public lands and rights-of-way, where possible.

#### 3.1.3.7 Other Urban Open Spaces

- Maintain significant trees and landscaped open space within institutional campuses, cemeteries, and other open-space uses that are visible from public right-of-ways.
- Enhance the entries and street frontages of cemeteries and campuses with trees and landscaping.
- Promote the development of plazas to fulfill park and open space requirements; provide floor area bonuses to encourage plazas in dense areas such as Downtown.

### 3.1.4 RELATION TO VIEWS AND OPEN SPACE MAPS (A.1 AND A.2)

**Maps A.1 and A.2** show the Urban Community Boundary and the components of the regional open space system.

The *Urban Community Boundary* serves as a primary tool for the long-term organization and guidance of urban growth. To be fixed during the life of the plan (to the year 2025), the Urban Community Boundary is intended to define and contain the extent of urbanized or “built-up” areas designated “urban” by the General Plan. The purpose is twofold: (1) to provide adequate lands for facilities or other groupings of built uses needed to support established or developing communities; and (2) to protect lands outside of the Urban Community Boundary that have important natural, cultural, or scenic resource values.

Lands outside of the Urban Community Boundary include lands with important resource values – e.g., wildlife habitat, archaeological sites, significant landforms and landscapes critical to important viewplanes – as well as lands that may be hazardous for development of structures or whose development could lead to environmental degradation in surrounding or downstream areas.



The maps show the following components of the open space network:

- ***Mauka Conservation Areas.*** Lands within the State Conservation District, as well as some steep hillside areas and deep valley areas within the State Urban District are shown as outside of the Urban Community Boundary and are designated by the Preservation symbol on all of the maps.
- ***Mauka-Makai Views.*** Significant views are indicated on **Map A.1, Significant Panoramic Views**, by directional arrows originating from public vantage points.
- ***Makai Access.*** Existing and proposed lateral public easements along the waterfront are identified on **Map A.2, Open Space**.
- ***Stream Greenbelts.*** Major stream greenbelts are indicated on the map. However, the policies and guidelines concerning stream greenbelts apply to all perennial streams, even if they are not specifically shown on the map.
- ***Parks and Recreational Open Spaces.*** Larger land areas, such as golf courses, regional and district parks, botanical gardens, and zoological parks are identified on the Open Space and Land Use maps. Community, neighborhood, and miniparks are part of the open space system, but are too small to display on the map.
- ***Other Urban Open Spaces.*** Cemeteries and campuses or campus clusters consisting of over twenty contiguous acres are indicated on **Map A.2, Open Space**. Urban plazas are too small to display on the map.

### 3.2 NEIGHBORHOOD PLANNING AND IMPROVEMENT

The Vision states: “Livable neighborhoods have business districts, parks and plazas, and walkable streets.” Key components of livability include residences within close proximity to employment, businesses, community services, and recreational amenities, with facilities integrated in a manner that enhances accessibility and convenience, encourages walking and bicycling as alternative forms of mobility and promotes sidewalk activity. Livable neighborhoods need to be cultivated through neighborhood planning, appropriate zoning controls and incentives, and targeted capital improvements.

To cultivate livable neighborhoods, this section sets forth general land use policy for residential neighborhoods and the commercial districts that serve them. Land use policy for specialized economic functions – e.g., resort, office, and industrial – is addressed in Section 3.4.

**Section 3.2.1** examines existing conditions, issues and trends; **Section 3.2.2** outlines broad policies; and **Section 3.2.3** sets forth guidelines. Sections 3.2.1 and 3.2.2 are divided into four corresponding subsections, as follows:

- “Neighborhood planning” addresses the role of more detailed planning at the neighborhood level in the development of livable communities that respect and incorporate the characteristics and values unique to each neighborhood.
- “Mauka residential neighborhoods” refers to lower density residential areas comprised of single-family and townhouse dwellings, mostly located *mauka* of the coastal plains.
- “In-town residential neighborhoods” refers to areas on the centrally located coastal plains of Honolulu and Pearl City-Aiea that are generally planned to include higher-density residential use. These neighborhoods often include a mix of apartment and single-family residences, and are closely related to major commercial districts and corridors.
- “Shopping and retail business districts” includes regional shopping centers, commercial districts and corridors, and neighborhood shopping areas.



**Section 3.2.4** discusses the relationship of the policies to the Land Use Maps and describes the meaning of the Land Use Map designations.

### **3.2.1 Existing Conditions, Issues and Trends**

Urban development in the PUC began with Honolulu Harbor and the surrounding Downtown area and gradually spread across the coastal plain, into the valleys and atop the broad faces of the coastal ridges. The smaller communities of Aiea and Pearl City grew up around plantation agriculture and the military bases near Pearl Harbor. Growth in the decades following Statehood brought the development of apartments and greater density to Honolulu neighborhoods from Kahala to Kalihi, and the creation of many new communities to the west, including Salt Lake, Moanalua, Aiea Heights, Waimalu and Pearl City Heights. Shopping and industrial districts grew, as did Waikiki and the Civic Center.

Nearly all of the commercial and industrial development, as well as high-density residential development, settled in the flat coastal plain close to the main east-west highways and arterial roads.

In the eastern part of the PUC, most of the higher-density development is located between Middle Street and Kapahulu Avenue, *makai* of a line delineated by School and Prospect Streets, Nehoa Avenue and the H-1 Freeway. A “main street” corridor extends east along Waialae Avenue to Kahala Mall. The State’s major cultural, educational, recreational, shopping and entertainment centers lie along Honolulu’s coastal plain.

In the western part of the PUC, a high-density node occupies the east side of Salt Lake, while higher-intensity military, airport, and industrial uses are located *makai* of Salt Lake Boulevard. In the Aiea-Pearl City area, the higher-density commercial, industrial and residential buildings developed on the coastal plain, mostly *makai* of the H-1 Freeway. Manana, a former Navy installation, is centrally located in Pearl City. Now owned by the City, it will be redeveloped for a mix of uses that will serve the community. Finally, the site now occupied by the State department of health’s Waimano Training School and Hospital is being studied by the State department of land and natural resources for its potential for other uses.

Several older, central Honolulu neighborhoods have a mix of uses and housing types. In Kakaako, the State government has established a special redevelopment district and has invested over \$125 million in upgrading street, water, sewer, drainage and utility infrastructure. As a result, Kakaako is gradually transitioning from industrial uses to apartment, office and retail development. In Iwilei, west of Downtown, older industrial activities are being succeeded by new, large-scale retail and entertainment uses. Nearby Kapalama, with its Dillingham Boulevard and King Street commercial corridors, continues to support a vital mixture of retail, service and industrial businesses.

The primarily residential areas of Makiki and McCully-Moiliili each have a mixture of high- and mid-rise apartments, older walk-up apartments and single-family residences. McCully-Moiliili also has important commercial and transportation corridors along King Street, Beretania Street, McCully Street and University Avenue. Development has slowed following the concentrated period of mid- and high-rise apartment development in the 1970s and 1980s.

Lower Kalihi and Kalihi-Kai were historically residential neighborhoods, developed with houses and walk-up apartments. More recent planning and zoning policy designated Kalihi-Kai for industrial use and Lower Kalihi for a mixture of industrial, commercial and residential uses. Due to market forces, commercial activity along Dillingham Boulevard, Kalihi Street and other major streets has increased. Kalihi-Kai now has a diverse mixture of businesses and residences.



These older neighborhoods demonstrate that residential uses can coexist with commercial and even light industrial uses in the same neighborhood. In McCully-Moiliili, for example, commercial businesses along King and Beretania Streets serve the needs of surrounding residential neighborhoods. Exemplifying mixed-use development, some newer apartment buildings rent ground floor spaces to small businesses.

Trends in development over the past 30 years have given rise to a number of “livability issues” that affect PUC neighborhoods to varying degrees. These issues range from not knowing your neighbors to needing motorized transportation to shop for groceries or go to a park. One measure of livability is having a coffee shop or a grocery store or other needed conveniences within walking distance of residences. Feeling safe to walk on the streets is another measure of livability.

Cultivating livable neighborhoods involves reintegrating commercial and residential uses within neighborhoods; making streets safe and pedestrian-friendly; redeveloping certain streets to attract pedestrian-oriented commercial activity; and creating parks and urban open spaces that attract people for informal recreation and socializing.

### **3.2.1.1 Neighborhood Planning**

Neighborhood Boards, Community Vision Teams (CVTs) and community associations throughout Oahu are actively planning for their neighborhoods. Community leaders continually request recognition and endorsement of neighborhood planning processes and plan documents.

The City Charter mandates an islandwide *General Plan* and a system of regional Development Plans, of which this is one of eight. As such, the role of the PUC Development Plan is to establish a clear regional policy framework that will support neighborhood-level planning within the region’s many diverse communities. Neighborhood- or community-level plans would act as more detailed, tactical elaborations of the more general, strategic policy framework established by the PUC Development Plan. This more detailed level of planning is critical because citizens identify most closely with and have the greatest investment in their specific neighborhood or community.

City governments in other states typically have some form of neighborhood planning. Seattle has a system of Neighborhood Plans that covers 31 neighborhoods. The City of Portland, Oregon prepares Community Plans covering specific areas within its jurisdiction. Both Seattle and Portland center their planning processes around broad community participation and representative advisory groups.

In the 1990s, the City and County of Honolulu recognized this need and began to support various forms of neighborhood planning. The planning and permitting department’s 1993 report, *General Plan and Development Plans Revision Program*, proposed the creation of “Special Area Plans” as a new element in the City’s planning system. The *Waipahu Town Plan*, the first community-based effort to be funded by the City, was accepted by the City Council in 1999.

At the turn of the millennium, the City funded a wide variety of community-based, community-level planning efforts. Community Vision Teams planned a variety of community improvements. Many undertook multiyear Capital Improvement Projects. Some of these teams initiated formal neighborhood planning projects.

Learning from these experiences, the City needs to establish a clear and consistent path for neighborhood-level planning – one that clarifies the City’s role and the neighborhood’s role in a collaborative process.



### 3.2.1.2 *Mauka Residential Neighborhoods*

“*Mauka* residential neighborhoods” refers to lower-density residential areas consisting of single-family and townhouse neighborhoods, mostly located *mauka* of the coastal plain. *Mauka* valley and ridge areas are predominantly developed with single-family residences. Single-family neighborhoods are also located in older parts of Aiea and Pearl City, Foster Village, Salt Lake, Kaimuki, Kapahulu, and Waialae-Kahala. Townhouse neighborhoods are located in Waiau, Newtown, Pearlridge, and Waialae-Kahala. Small enclaves of higher-density use are located within lower-density areas, such as the tall apartment buildings along Nuuanu Avenue.

Key livability issues include the following:

- **Overdevelopment of single-family house lots.** The principal elements of building scale and design for single-family residential and townhouse development are: (a) low building height profile, generally one or two stories; (b) a low ratio of building coverage on the lot, with landscaped yards on all sides; and (c) pitched roof design, varied facades, and other architectural features that reduce the apparent structural bulk.
  - In many single-family residential areas, there is a trend towards increased density and larger dwelling unit size. In some cases, properties are subdivided into multiple small lots. In other cases, larger new dwellings replace smaller old ones, houses are expanded, or *ohana* units are added. This results in increasingly large dwellings covering a greater portion of the lot on which they are located.
  - Often, depending on the occupancy of the dwelling, there is increased demand for off-street parking which results in additional paving, particularly in the front yard. In addition, there is a greater tendency towards lots enclosed within a solid wall, usually because the larger building is located closer to the street
- **Overdevelopment of nonresidential uses.** Building design standards for residential districts apply not only to dwellings but also to other types of uses that are permitted on residential-zoned lots, such as churches, day-care facilities, private schools, and community centers. While these uses are generally consistent with the purpose of a residential zone and provide a service to the neighborhood, they tend to be less compatible with surrounding uses as their building scale becomes larger and the level of use intensifies.
- **Planning and design of residential streets overemphasizes the rapid movement of automobile traffic.** Many single-family residential neighborhoods were developed prior to the automobile age and have narrower streets than are required by modern public works standards. Often canopy trees shade the streets, creating a pleasant ambience for residents, motorists, and pedestrians. While formal sidewalks may not be present, safe pedestrian passage is usually available along grassed areas on either side of the road pavement, or even within the roadway itself where the vehicular traffic volumes and speeds are relatively low.

Following a nationwide trend, Honolulu adopted public works standards in the late 1960s that sized and configured roads to enhance the flow of automobile traffic. The road standards applied to residential subdivisions were based on highway design featuring wide travel lanes and broad curve radiuses. This had two results. First, new subdivisions were built with overly wide roadways that encourage speeding and detract from the sense of community. Secondly, many older roads were rated “substandard.” Subsequently, many older streets have been designated for widening by the City’s Department of Transportation Services (DTS). While there is no comprehensive City-funded program to accomplish planned widenings, parties redeveloping or subdividing properties are required to dedicate street improvements built to current standards. In this way, segments are widened or acquire sidewalks while the remainder of the street remains in the preexisting configuration.



The small amount of additional growth that is anticipated in these neighborhoods does not warrant an aggressive program to reconstruct older right-of-ways to current public works standards. Doing so would not only be prohibitively expensive, but also environmentally disruptive. In many instances, street widening would require the taking of private residential lots and dwellings. Presently, many residential lots are encumbered by setbacks for future street-widening projects that may never occur.

Moreover, present street conditions in older neighborhoods tend to calm traffic and promote a quieter, cooler environment. It would be more cost-effective and environmentally desirable to direct the City's financial resources towards safety improvements for vehicular, bicycle, and pedestrian routes along older streets where needed.

Conversely, some of the wider streets in newer neighborhoods are potential candidates for traffic calming measures such as pavement narrowing, more effective pedestrian and bicycle routes, and street tree planting. Where traffic is calmed, there is less reason to build high, solid walls at the front property line for privacy and screening out headlight glare and traffic noise.

- **Building on steep slopes.** *Mauka* valley and ridge neighborhoods include sites with steep topography where development may result in adverse visual impacts or hazardous conditions. For the most part, hillside locations have stable soils, so the primary impact is aesthetic as structures built too high on steep slopes tend to be visually obtrusive, especially when they interrupt the silhouette of a ridgeline. Hazardous building conditions are more prevalent on the lower slopes of valley walls, where deposits of unstable soils are susceptible to slow-moving landslides.

Incremental build-out of hillsides and lower valley slopes affects both natural and urbanized drainage systems. Increased lot coverage by larger buildings and more extensive paving has increased the volume and rate of stormwater discharge. The problem is exacerbated in the *mauka* reaches of the valleys and hillsides, where rainfall is higher.

Over the long term, the cumulative impact of greater lot coverage threatens to erode natural stream banks downstream. This typically leads to structural hardening of the drainage channel with concrete – an expensive, aesthetically, and ecologically undesirable result. In some areas, the increased level of stormwater runoff has exceeded the capacity of the drainage system and resulted in flood conditions.

### 3.2.1.3 In-Town Residential Neighborhoods

“In-town residential neighborhoods” refers to areas on the centrally located coastal plains of Honolulu and Aiea-Pearl City that are planned for higher-density residential use. Ranging from older two- to four-story walk-up buildings to 40-story high-rise towers, higher-density residential buildings take a variety of forms and are often mixed with or located close to office and retail uses. Higher-density residential areas vary widely in terms of the height and volume of the buildings, the mix of uses in the neighborhood, and connections to the street and neighboring properties.

In-town housing is near jobs, shopping districts, hospitals, parks, and entertainment. Residents of these areas enjoy excellent access to all of the opportunities of the city, without having to rely exclusively on costly automobile transportation. Mixed-use is an essential component of the most livable in-town neighborhoods, and residents of these neighborhoods find parks and shopping in easy walking distance. Bicycling on the flat coastal plain is a practical mode of transportation, and transit provides a comfortable ride with fast connections.

Key livability issues include the following:

- **Single-use zoning.** Segregation of residential, industrial, and commercial uses into separate zoning districts means that many neighborhoods lack essential services within walking distance. Residents are forced to use their cars to go shopping or find recreation.



- **Unneighborly building relationships.** In Makiki and other areas planned for and in transition to apartment use, high- and mid-rise towers are physically isolated from other buildings. Many are also isolated from the public street, with lobbies accessible only from the parking garage or across a parking lot. These larger buildings are juxtaposed with older, walk-up apartments and single-family lots occupied by older houses or redeveloped in two-story “adaptive residential” configurations. Typically, the walk-up apartment lots are completely paved, with no trees or landscaping. Many blocks are a jumble of different building styles and different scales of height and bulk. Often, there is little to unify the apartments visually and little in terms of shared public space where neighbors might become acquainted. Because of the juxtaposition of different uses and buildings of dramatically different scales, many blocks within the transitional neighborhoods lack a consistent character. Often, buildings bear little or no relationship to their neighbors, and open space between buildings typically consists of service yards and parking lots.
- **Declining commercial districts.** Increasing concentration of retail establishments in shopping centers and the advent of supermarkets and “big-box” retailers have displaced smaller neighborhood stores and left older commercial districts at a competitive disadvantage. In addition, increased street widths and changed zoning standards have rendered older properties nonconforming. Existing zoning regulations preclude improvements or render building rehabilitation infeasible.
- **Automobile dominance.** Widening and conversion of key streets to one-way arterials, such as along King and Beretania Streets, has resulted in reduced sidewalk widths, reduced on-street parking, and reduced pedestrian activity. In the Aiea-Pearl City area, walking distances between destinations are generally too long for most pedestrians. Parking lots and garages typically separate bus stops and public sidewalks from entrances to commercial establishments and apartment buildings. Adverse street and traffic conditions further discourage walking.
- **Insufficient parks and open space.** The older and more intensively developed parts of the PUC lack sufficient parks, recreation facilities and open space. Particularly impacted are Makiki, Nuuanu, Downtown, Liliha, and Kalihi-Palama.

#### 3.2.1.4 Shopping and Retail Business Districts

Retail shopping is concentrated in four regional shopping centers: Ala Moana, the Victoria Ward Centers, Pearlridge, and Kahala Mall. These shopping enclaves dominate the market, while older street-oriented business communities – e.g., the Waialae Avenue corridor in Kaimuki and the King Street corridor in Kalihi – have declined. Regional shopping centers have been designed as massive building forms primarily accessible by automobile, with expansive parking lots or large parking structures separating stores from their surrounding neighborhoods. Smaller shopping centers, such as Pearl Kai, are similarly cut off from the street and the surrounding community. Throughout the Aiea-Pearl City area, shoppers typically drive from center to center, and pedestrian use of the streets is practically nonexistent.

The Downtown-Chinatown area contrasts the shopping centers. With its large employee population, Downtown-Chinatown supports many small and large retail businesses accessible from the sidewalk. Parking is generally available in structures above the street level. With its retail storefronts, pedestrian-oriented Fort Street Mall, and commercial plaza spaces (e.g., Maunakea Marketplace), Downtown-Chinatown offers a wide variety of experiences quite different from the homogeneity of the shopping mall.

Older commercial buildings along major streets are typically built up to the front and side property lines, creating a street-wall composed of interesting storefronts such as those found in Chinatown, Kaimuki, and in parts of McCully-Moilili. Under current zoning regulations, many of these older buildings lack sufficient off-street parking. Due to the lack of parking, a new business tenant often faces difficulty and delay in obtaining a building permit for store or restaurant improvements.





**FIGURE 3.4: LEHUA AVENUE, PEARL CITY – 2001.** Community members identified the old heart of Pearl City as a place with potential for revitalization. The photograph looks *mauka* along Lehua Avenue, which – at four lanes – is wider than needed.



**FIGURE 3.5: LEHUA AVENUE, PEARL CITY – IN THE FUTURE.** A vision of the future shows the potential of streets like this, given active business investment, and a modest amount of street improvements. Lehua Street is transformed into a boulevard with wide sidewalks, trees, a center median, and head-in parking. Responding to the improvements and increased parking, owners have renovated buildings and storefronts. In the foreground, coffee shop customers chat over a cup of java, and the bike shop caters to cyclists using the nearby Pearl Harbor Historic Trail.

In older areas, a combination of small lot size and the location of the building footprint often makes it impossible to provide on-site parking to meet current zoning requirements. This in turn hinders owners from changing commercial tenants and expanding or improving the building. Consequently, lots with older commercial buildings oriented towards the street are often redeveloped with new buildings that are set back from the street and parking lots adjacent to the sidewalk, or assembled with adjacent lots and redeveloped as small shopping centers.



In addition to the major commercial districts located in the more intensively developed coastal plain, there are also community-level shopping areas located within the *mauka* residential neighborhoods. Smaller commercial enclaves, such as Kamehameha Shopping Center and Manoa Marketplace, provide grocery stores and other important services in convenient proximity to residences. The grocery store often functions as a *de facto* neighborhood center, a place where people meet their neighbors in casual encounters. In other neighborhoods, such as Palolo and Pauoa, groupings of stores are situated along collector roads. The issues discussed above relating to parking requirements, small lot size, and the street-wall of older storefronts are also prevalent in neighborhood commercial areas.

### 3.2.2 POLICIES

Cultivating livable neighborhoods demands a broad set of policies addressing an array of topics, including the design of residential, commercial, and industrial development; the design of parks, streets, and other public spaces; priorities for public investment; and planning at the neighborhood level. Following are key policies. Additional policies relating to multifamily housing may be found in **Section 3.3**. Others relating to transportation may be found in **Section 3.5**.

#### 3.2.2.1 Neighborhood Planning

This set of policies can be applied to different types of neighborhoods and business districts, including both lower- and higher-density residential areas. Applications will differ according to the particular character of the community.

- ***Develop a system for collaborative neighborhood planning.*** Planning for neighborhood improvement must be undertaken at the neighborhood level. Neighborhood planning is a collaborative enterprise involving residents, business and property owners, government agencies, and others who have a stake in the neighborhood.  
Special Area Plans are intended to be developed in accordance with the overall policy planning guidance of the PUC Development Plan and to elaborate on it at the local level. Special Area Plans should respond to the specific issues of their communities. They may address issues such as neighborhood character (this may apply to building, streetscape, or open space character), special features, types of facilities or uses, specific opportunities or constraints to neighborhood improvement or enhancement, economic direction, safety, lifestyle opportunities, access, and circulation.  
While it already engages in this type of community-based planning, the City department of planning and permitting should take the lead in developing a *formalized* process for initiating, staffing, funding, and preparing Special Area Plans.
- ***Cultivate existing and new “neighborhood centers.”*** Neighborhoods need central places where people gather for shopping, entertainment, and recreation. The center of a neighborhood could be a public plaza or a recreation complex, or a commercial town center, with a grocery store and other shops and services. It could have a public park or a plaza linked to shops. Cultivating neighborhood centers entails investment in parks and pedestrian street improvements.
- ***Promote mixed land uses.*** Office, retail, and community service uses can coexist with residential uses; and there are a number of opportunities for them to support each other. In traditional single-family neighborhoods, groupings of small stores provide convenient service and a place to meet neighbors. In the PUC’s in-town neighborhoods, both residential and office development support retail and other services. Neighborhoods with a strong mix of uses have activity 24 hours a day. Residences providing “eyes on the street” contribute to neighborhood safety.
- ***Create parks that draw people and activity.*** The PUC should have a range of parks. While all provide open space and relief from buildings and traffic, some should provide for organized sports and fitness activities, and others should function more as neighborhood gathering places. In the PUC, development



of one or two large sports complexes with substantial parking could provide for league play of all kinds, while smaller parks could be used in inventive ways to meet the needs of their surrounding neighborhoods. Like other cities throughout the world, plazas and open spaces that attract people and activity are integrated with churches, shops, and other buildings.

- ***Make streets “pedestrian-friendly.”*** There are many opportunities to create street environments that invite pedestrian use, such as widening sidewalks, planting trees to provide shade and buffer pedestrians from vehicular traffic, and narrowing intersections to provide shorter and safer pedestrian crossings. The Land Use Maps (Maps A.4, A.5 and A.6) show primary pedestrian routes. These streets and others identified through neighborhood planning should be given high priority for pedestrian improvement.
- ***Make major streets which connect communities convey neighborhood identity.*** The identifying characteristics that give neighborhoods their unique visual signatures or identities should be emphasized and conveyed by the streets that connect them to other places. To help accomplish this, landscape and other streetscape design for major streets which serve as *principal routes* connecting two or more neighborhoods should reflect the unique identities of each neighborhood and, where possible, should provide open spaces between them which create significant public views or access to *mauka* or shoreline resources.

### 3.2.2.2 *Mauka Residential Neighborhoods*

- ***Density.*** Lower-density residential areas may have single-family residences and townhouse apartments at a density of five to 12 dwelling units per acre, with predominantly two-story building heights. Areas zoned for apartment use may have higher densities.
- ***Appropriate Building Design.*** For institutional and other nonresidential uses allowed within lower-density residential areas, provide guidelines for the location and design of buildings, service areas, and pedestrian and vehicular access. In general, street-facing building elements should be attractive, designed for human scale, and have clear points of entry. Service and utility elements should be located out of sight from the street and away from residences.

### 3.2.2.3 *In-Town Residential Neighborhoods*

- ***Density.*** Areas close to transit lines and the major east-west arterials should be zoned for medium-density residential, which may range from 13 to 90 units per acre, or high-density residential mixed use, which may range up to 140 units per acre. Neighborhoods in these zones would also include reinforcing uses which support resident lifestyle and livelihood choices, such as convenience or neighborhood stores, dining establishments, professional or business services, or both, or other similar activities. (See **Section 3.3** for more discussion of higher-density residential design.)
- ***Building Heights.*** Establish maximum desired building heights in apartment-zoned districts on the basis of viewplane studies to preserve views of natural landmarks as indicated in **Section 3.1**. Otherwise, the maximum building height for districts zoned low-density apartment should be approximately four stories or 40 feet. For areas zoned medium-density apartment, the maximum desired building height should be either 60 feet or the present height of the building occupying the lot. It is expected that with these criteria, building heights for most in-town residential neighborhoods, including Moiliili, McCully, and other established neighborhoods between Ala Moana and the University of Hawaii, would not exceed currently allowed heights. Given market conditions, development feasibility, and future incentives and standards encouraging the enhancement and development of livable neighborhoods, such districts may experience lower than currently sanctioned building heights.
- ***Building Design and the Streetscape Environment.*** Neighborhood plans should distinguish between principal or “front door” streets that give a neighborhood the opportunity to “put on its best face,” and



secondary or local streets where a variety of activities are appropriate or where service is the main function. Utilitarian elements such as service yards, parking lots, or utilities should be located on nonprincipal streets in ways that support efficient patterns of circulation.

Along principal streets, buildings should be designed to reflect human scale, to create pleasant walking conditions, and to provide attractive front entrances. Monolithic building faces and blank walls should be avoided. A generally consistent building line (i.e., “build-to” line) should govern the street front placement of building faces. Courtyards or other recessed open spaces may be placed along the street in order to provide strategic open space relief and opportunities for social activity or respite.

#### 3.2.2.4 Shopping and Retail Business Districts

- ***Community/Neighborhood Commercial.*** These commercial areas should be located within and should primarily serve lower-density residential neighborhoods. Generally 10 acres or less in land area, these districts or clusters of establishments typically have service stations, grocery and sundry stores, and other small businesses serving residential customers. Buildings are generally one or two stories in height. While they vary greatly in total size and number of business establishments, a Community/Neighborhood Commercial area typically has no more than 200,000 square feet of commercial floor area.
- ***District Commercial.*** District Commercial includes a wide variety of commercial uses located in the core areas of the PUC. These districts typically have larger facilities and serve larger populations than community/neighborhood commercial districts. They may include major office buildings, shopping centers, and older commercial streets that serve a district-wide, regional or islandwide population. Mixed uses, including medium to higher density residential uses where appropriate, and higher densities are encouraged in these areas. Downtown should have the tallest buildings on Oahu. In other areas, maximum building heights should be established on the basis of viewplane studies to preserve views of natural landmarks.
- ***Commercial streets.*** Enliven commercial streets by providing wide sidewalks and trees for shade, and encouraging property owners to build to the sidewalk edge. Vital urban neighborhoods rely on high pedestrian activity. Storefronts create interest and stimulate pedestrian activity along the street, especially when they are built to the property line and meet the public sidewalk.
- ***District-wide parking.*** Support older commercial districts and the continued use and rehabilitation of small commercial lots by providing conveniently located municipal parking. In the past, the City organized parking improvement districts and built centralized parking in Downtown and Kaimuki.
- ***Integration of shopping centers with adjacent neighborhoods.*** Ensure that all shopping areas integrate well with adjacent residential neighborhoods. Require safe, pleasant, pedestrian connections between shopping establishments and their host neighborhoods. Encourage the planning and development of centers or clusters of shopping establishments to have their shops rather than parking lots face and be adjacent to abutting neighborhoods. Wherever possible and appropriate, encourage compatible or seamless design and landscape treatment of public routes and thoroughfares between residential and shopping areas. To the greatest extent possible, avoid placing service uses adjacent to resident areas and major frontages. Efforts should be made to appropriately locate and distinguish between front door and service zones.

Require good pedestrian connections within shopping center parking lots. Encourage retail complexes and small centers to reduce or eliminate physical barriers to pedestrian access between facilities within the complex and from adjacent neighborhoods. Develop agreements for shared parking. Regulate large centers in order to reduce traffic and parking impacts on the surrounding neighborhood. Encourage redevelopment of shopping centers as shopping districts by developing commercial buildings along street frontages and by redeveloping driveways as shop-lined streets.



### 3.2.3 RELATION TO LAND USE MAPS (A.4-A.6) AND ZONING

The following summarizes the land uses within the PUC, as shown on **Land Use Maps A.4 to A.6** in the Appendix of this document. The Land Use Maps, which illustrate generalized categories of land use within the region, are conceptual in nature. The land use designations are broad classifications that refer to the desired character of the area and not the specific use of the individual parcels.

- ***Lower-Density Residential.*** Areas designated Lower-Density Residential are shown as yellow on the maps. They include neighborhoods in valleys and on ridges, such as Manoa Valley and Aiea Heights; neighborhoods around Aliamanu Crater and Salt Lake, including military housing; older portions of Aiea and Pearl City; and the neighborhoods surrounding Diamond Head. Areas designated Lower-Density Residential encompass most of the established single-family residential neighborhoods in Honolulu and Pearl City.
- ***Medium- and Higher-Density Residential/Mixed Use.*** Shown on the maps as light brown, the Medium- and Higher-Density Residential/Mixed Use designation is generally applied to centrally located neighborhoods that are served by major east-west highways and arterials, as well as by express public transit. They include apartment areas in the Pearl City region *makai* of the H-1 Freeway; apartment areas in Salt Lake, Red Hill, and nearby military reservations; areas of Kalihi-Palama between the H-1 Freeway and Dillingham Boulevard; and areas across the coastal plain of central Honolulu – i.e., Liliha, Vineyard, Punchbowl, Makiki, Kakaako, McCully-Moiliili, Waikiki, and Date Street. Because of their central location, predominantly single-family residential areas in lower Manoa, McCully, and Kaimuki that lie near the H-1 Freeway should be considered for Higher-Density Residential use in the future. It should be kept in mind that building height does not necessarily increase with density. Medium or higher density residential complexes which employ efficient site usage and creative clustering or groupings of units can result in medium- to high-density residential areas that may be low- to medium-rise in height, that relate harmoniously to people and to adjacent streetscapes, that reflect residential character, and that can provide courtyards or private, semipublic, or completely public and usable active or passive open spaces that can serve as conveniences to residents, visitors, or passersby.
- ***District Commercial.*** Indicated by red on the maps, areas designated for District Commercial include the PUC's primary retail and office complexes. They consist of central in-town areas, including Downtown Honolulu, shopping centers, and commercial areas located along arterial streets such as Kamehameha Highway, King Street, Dillingham Boulevard, Ala Moana Boulevard, Ward Avenue, Kapiolani Boulevard, Keeaumoku Street, Kapahulu Avenue, and Waialae Avenue.
- ***Community/Neighborhood Commercial.*** Indicated on the maps by a red dot, Community/Neighborhood Commercial districts are primarily located within the lower-density residential areas that they serve. These districts take a variety of forms: small clusters of stores such as in Kalihi Valley; business streets like Lehua Avenue in Pearl City and School Street in Kapalama; and small centers like Salt Lake Shopping Center, Stadium Mall, Kamehameha Shopping Center, and Manoa Marketplace.
- ***Resort.*** Intended as a mixed-use designation, Resort districts consist primarily of resort hotels, timeshares and other apartments used as transient visitor units (TVUs); and supporting commercial uses, such as shops, restaurants and entertainment. This designation only applies to the Waikiki, Marina, Hobron and Fort DeRussy neighborhoods that are colored pink on the Land Use Maps (See Maps A.5 and A.6).
- ***Industrial.*** Shown on the maps as purple, this designation includes not only industrial districts but also the major transportation facilities – Honolulu Harbor and Honolulu International Airport (HIA). The mostly State-owned lands around Honolulu Harbor and on Sand Island support cargo handling and port facilities. Also State-owned, HIA consists of airfields linked to Hickam Air Force Base, aircraft maintenance facilities, and terminals for passengers and cargo.





**FIGURE 3.6: KUAKINI STREET, LILIHA—2001.** Community members identified the commercial areas in lower Liliha as having potential for revitalization. The photograph shows existing shops and apartments along Kuakini Street, looking Diamond Head to the Liliha intersection.



**FIGURE 3.7: KUAKINI STREET, LILIHA—IN THE FUTURE.** In a vision of the future, Liliha residents and visitors enjoy a lively mix of shops and small restaurants. This block and nearby Liliha Street have become a neighborhood center. New buildings filling in the block and trees shading the sidewalks provide an interesting and comfortable ambience for pedestrians. Above the shops are apartments and businesses. More parking is found in a midblock municipal lot.



- ***Institutional.*** The location of the Civic Center and major institutional campuses – including public and private secondary schools, colleges, hospitals, and other large institutions – are indicated by a blue color on the Land Use Maps. Smaller institutional uses – such as churches, elementary schools, and community centers – are generally not shown, but are allowed in most zoning districts subject to appropriate zoning controls to assure compatibility with surrounding uses.
- ***Military.*** Military uses other than residential, parks and open space, and commercial functions are shown in gray. Areas designated for military use include Pearl City Peninsula, Pearl Harbor Naval Base, Hickam Air Force Base, Camp Smith, Tripler Army Medical Center, and Fort Shafter Military Reservation. Ford Island, which is shown as military, is projected for a mixture of military, residential, commercial, and community uses. Military bases are exempt from local planning and zoning. Nevertheless, it is important to recognize that military residential communities often abut nonmilitary neighborhoods.
- ***Parks and Open Space.*** Larger land areas such as golf courses, regional and district parks, botanical gardens, and zoological parks are identified as Parks and Open Space on the Land Use Maps. Community, neighborhood and miniparks are part of the open space system, but are too small to display on the maps.
- ***Preservation.*** Shown on the Land Use Maps as light green, lands designated Preservation lie primarily in the State Conservation District, outside of the Urban Community Boundary. Also included in this designation are the few PUC lands that are zoned for Agriculture, including areas along the edge of Waiawa Stream, Kalauao Springs, and at the back of Palolo Valley.

### 3.3 IN-TOWN HOUSING CHOICES

The PUC of the future “offers in-town housing choices for people of all ages and incomes.” This third element of the Vision addresses the need for affordable housing, both rental and for sale, in the PUC to serve families with young children as well as young adults, elderly residents, and multigenerational households.

**Section 3.3.1** examines the issues relating to the housing stock and impediments to new housing development. **Sections 3.3.2 and 3.3.3** set forth policies and guidelines.

#### 3.3.1 EXISTING CONDITIONS, ISSUES AND TRENDS

In the year 2000, the PUC had a population of 419,000. The General Plan calls for the PUC to accommodate 47 percent of Oahu’s population. Based on the City’s long-range population projections, this would yield a 2025 PUC population of 486,000 people – a potential population increase of 67,000 people over 25 years.

##### 3.3.1.1 Housing Stock and Occupancy

In 2000, the PUC had 172,000 housing units, or approximately 55 percent of Oahu’s total housing stock. Compared to the rest of Oahu, the PUC housing stock is older and has a higher proportion of multifamily (apartment) units. Almost 50 percent of the PUC’s housing is occupied by renters, compared to 41 percent for the rest of Oahu.

A little more than one-fourth of all housing units in the PUC were built prior to 1959, the year of Statehood. As of 2000, the PUC had 89,000 units over 30 years old – sixty percent more than the rest of Oahu. Most of the older units found in the PUC are single-family residences located between Kalihi and Kaimuki.

According to 2000 census data, over 60 percent of PUC housing consists of multifamily units. Renters occupy over 70 percent of PUC apartment units, while owners occupy about 73 percent of single-family units.



Renters are concentrated in the urban core of Honolulu. With the exception of the *mauka* residential areas, census tracts from Kalihi to Kaimuki had at least 40 percent renters. Renters occupied more than 55 percent of the available housing units in Kalihi-Palama, Downtown Honolulu, and Ala Moana-McCully. The same areas had high proportions of low- and moderate-income households. Pre-1969 walk-up apartments located in these neighborhoods comprise an important reservoir of affordable, in-town housing units.

In the 1980s and early '90s, the City and the State carried out aggressive low-moderate income housing development not only in Ewa but also in Downtown and Kakaako. As of 2000, however, most of the government-owned in-town sites have been developed, and funding for new housing has been drastically reduced, making preservation and retention of existing affordable units an integral and essential component of fulfilling the housing needs of PUC residents.

### 3.3.1.2 Development of New Housing

The PUC is essentially “built-out” – i.e., there is no reservoir of vacant land designated for future urban use. New housing is developed on lands which are underutilized or where it is not economical to maintain the existing uses or structures. This occurs primarily in older in-town districts where land values are relatively high, and there is a strong market demand for higher use.

One key redeveloping area is Kakaako, which is zoned and regulated by the State’s Hawaii Community Development Authority (HCDA). HCDA has invested in improving infrastructure in order to support higher-density residential and mixed-use development. Based on plans developed in the late 1970s, more than \$125 million has been spent on infrastructure improvements in four improvement districts. The comprehensive program has included improvements to roadways, drainage facilities, sewers, water lines, and electrical and communications lines. The State of Hawaii underwrote 80 percent of the cost, with the remainder paid by property owners and utility companies.

With large blocks of land controlled by large landowners, infrastructure already in place, and relatively, generous floor area ratios (FAR) available for larger projects, Kakaako is projected to absorb about 30 percent of the PUC’s future residential growth and a large portion of the region’s projected commercial growth. Kakaako regulations provide for a maximum floor area ratio of 3.5 to 3.8 for “Planned Developments,” compared to 1.9 FAR for A-2 Medium Density Apartment zoning, and 2.8 FAR for A-3 High Density Apartment zoning under the City’s *Land Use Ordinance (LUO)*.

Floor Area Ratio, or the ratio of the floor area of a building to the legally defined area of the land it stands on, governs how much building may be built on any given parcel of land. The higher the FAR, the more floor area a building can contain. Greater FARs allow greater intensities of land use, and may influence the character of development that results from it. However, because a building can be shaped and arranged in many different ways on the land it uses, greater intensity of land use may not always result in taller buildings or feelings of congestion. Skillfully planned and designed developments using generous FARs can create buildings and building groupings of moderate heights which relate comfortably to the size and needs of people, with pleasant, usable open spaces and senses of spaciousness that provide comfortable balances with the built environment.

Other PUC neighborhoods, such as Makiki and McCully-Moiliili, already have substantial amounts of medium- and high-density housing. Several important factors, however, hinder the development of new residences, especially new multifamily dwellings. These factors may be briefly summarized as follows:



- **Higher Prices.** Prices for all types of housing – both sale and rental prices – are extremely high in the PUC, with single-family houses clearly beyond the affordable range. Prices for apartments are generally high because of higher costs for land and for construction of high-rise structures.
- **Housing Preferences.** Due to the high price of real estate in the PUC, homebuyers seeking affordable housing are typically limited to apartment dwellings in the PUC. (Most new housing, and practically all of the new single-family housing, is being built in Ewa and Central Oahu.) Living in multifamily housing in the PUC is readily accepted by elderly and other households without children but is viewed as less desirable by families who can afford to buy. In addition to resistance to apartment-type housing, families are also concerned about the lack of schools and parks in PUC apartment neighborhoods.
- **Rental Unit Development.** Market conditions also discourage development of rental units. For many years, pure rental projects were developed only when heavily subsidized by government. Indirectly, rental units have become available as investors purchased individual condominium units and then rented them out.
- **Higher Risks.** Development of a multifamily, high-rise structure carries more developer risk than lower-density housing because the structure must be completed (and the investors fully extended) before any sales are closed. Honolulu’s *Uniform Building Code* requires “Type 1” construction for large apartment buildings. Type 1 standards essentially demand a reinforced concrete structure, which is very expensive. With the high carrying costs of a completed building, slow absorption can cut into or eliminate profits. The higher risk makes it more difficult and costly to obtain development financing.
- **Infrastructure Deficiencies.** Infrastructure deficiencies are found in most of the older, in-town neighborhoods. Some affect broad areas and are costly to correct, such as insufficient capacity of a sewer trunk line or a pump station. In such cases, development cannot occur until the City makes improvements to expand capacity. For upgrading local water, sewer, or drainage lines, the developer typically bears the full cost of the required improvement (even though other properties may benefit as well). The cost of required infrastructure improvements can make a project infeasible.
- **Zoning Regulations.** Zoning regulations strictly limit the floor area and the lot coverage of apartment buildings. High minimum parking requirements, combined with limitations on lot coverage, force the development of costly structured parking. In addition to substantially increasing project design and construction costs, existing regulations force apartment buildings into a tower configuration with a parking pedestal.

These factors limit the availability of affordable housing for middle- and lower-income families in the PUC. While the City and County of Honolulu cannot directly affect market factors, it can support new housing development by modifying zoning and building regulations, and upgrading infrastructure.

### 3.3.1.3 Design of Multifamily Housing

As discussed above, existing regulations in the *Land Use Ordinance*, as well as in HCDA’s *Kakaako Community Development District Administrative Rules*, favor tower-type apartment buildings with large parking pedestals. With blank garage walls on the parking pedestal and a visually prominent tower above, such buildings typically relate poorly to the street and to the buildings around them. Driveways and garage entrances dominate the street frontage, making the area uninteresting and unattractive to pedestrians. While the main housing element may be a slender tower, the building appears massive from the ground because of the large parking pedestal. The *LUO* regulations have promoted the construction of towers in several ways: by limiting building footprints (which in turn promotes tall buildings); by requiring yard setbacks; and by allowing unlimited floor area within parking structures (which in turn promotes massive parking structures).



An alternative type of housing design is shown in a future vision of Kakaako. “Before-and-after” illustrations, **Figures 3.8 and 3.9**, show how the warehouse district around Mother Waldron Park could be transformed into a residential neighborhood. Residential buildings of up to six stories have pedestrian entrances and ground-floor shops. Parking is accessed from side or rear driveways. If Pohukaina Elementary School were rebuilt next to the park (the site is to the right of the picture), this townhouse and apartment neighborhood could provide a welcome in-town alternative for young families.

The housing design represented in **Figure 3.9** creates a cohesive neighborhood environment. All of the buildings are built up to the sidewalk, have entries and commercial uses on the ground floor, and have similar cornice (roof) heights. While similar building types and scale create a sense of cohesion, architectural detailing can give each building a distinctive character. Together, the buildings create four walls that frame the park and make it “an outdoor room” similar to the urban parks and plazas discussed in Section 3.1.3.5.



**FIGURE 3.8: KAKAAKO—COOKE AND POHUKAINA STREETS—2001.** This view *makai* along Cooke Street shows warehouse buildings occupying the blocks near Mother Waldron Park. Based on plans to redevelop the area with residential and commercial uses, the State has upgraded roads and utilities and has built a new drainage system for the area. With the existing park and a proposal to construct a new public elementary school, this part of Kakaako has excellent potential for in-town residential development.



**FIGURE 3.9: KAKAAKO—FUTURE IN-TOWN RESIDENTIAL NEIGHBORHOOD.** In this vision of the future, mid-rise apartment buildings ring Mother Waldron Park. Families living in the area enjoy a revitalized Mother Waldron Park. They browse and have coffee in the shopping arcade along Cooke Street. Food and other necessities are available at the full-sized grocery store on the corner. Residents can walk to Downtown offices or commute to work using rapid transit.



### 3.3.2 POLICIES

The following policies are intended to promote housing choices in livable in-town neighborhoods that are planned for higher-density residential and mixed uses. The first two policies entail changing development standards for apartment zoned districts and other zoning districts that allow multifamily dwellings.

- ***Promote people-scaled apartment and townhouse dwellings in low- or mid-rise buildings oriented to the street.*** Promote buildings that are modest in height and have a pedestrian entrance facing the street. Encourage the use of ground-floor space for shops that will serve residents and contribute to a pedestrian-oriented neighborhood. This policy entails revising zoning regulations.
- ***Improve the feasibility of redeveloping small lots.*** Remove disincentives for townhouse and low-rise apartment development on smaller lots zoned for multi-family dwellings. This policy entails revising zoning regulations.
- ***Reduce costs for apartment homes.*** Reduce construction costs and promote low-rise buildings by allowing less expensive building construction types while maintaining health and safety. Reduce land costs by allowing greater dwelling unit density while limiting building volume consistent with promoting livable neighborhoods. This policy entails revising building and zoning regulations.
- ***Provide adequate parks and schools for in-town neighborhoods.*** Community parks and recreation facilities should be provided in and near residential neighborhoods. To attract young families, access to elementary schools must be assured.
- ***Expand the capacity of infrastructure, including water supply, sewers, and storm drains.*** Government needs to lead both planning and investment in renewing and expanding infrastructure. To remedy district- or neighborhood-scale infrastructure constraints is beyond the capability of individual landowners. Likewise, paying for relief lines and larger-scale projects that will benefit multiple landowners requires government leadership in providing long-term financing and apportioning costs.
- ***Support the retention, rehabilitation, and improvement of older, low-rent apartment buildings.*** Many older, walk-up apartment buildings constructed prior to the 1969 *Comprehensive Zoning Code* do not conform to current zoning or building standards but collectively comprise a valuable reservoir of low-cost rental housing. The City should relax zoning requirements to encourage the rehabilitation and improvement of these buildings.
- ***Preserve the current inventory of affordable rental housing units.*** The City should assure that the current inventory of affordable rental units, whether owned by the city or not, is preserved and retained as affordable rentals.
- ***Provide for special needs housing.*** Allow housing for people with special needs, such as group homes for the disabled or congregate living and care homes for the elderly, subject to special development standards or permit review. Promote the dispersal of special needs housing among various neighborhoods and avoid over-concentrating facilities in just a few areas.
- ***Provide incentives and cost savings for affordable housing.*** Provide exemptions from zoning and building codes for housing projects that meet established standards of affordability, on a case-by-case basis.
- ***Provide for high-density housing options in mixed-use developments around transit stations.*** This type of “transit-oriented development” facilitates transit use and allows for increased densities without generating increased vehicular congestion.

### 3.3.3 GUIDELINES

- In order to implement Development Plan policies, review and revise zoning regulations for apartment districts and other zoning districts that allow multifamily dwellings.



- Review and revise zoning and building regulations to allow more flexibility in design and reduce the cost of multifamily structures.
- Review and revise zoning regulations and permitting processes to encourage innovative forms of housing and group living accommodations for people with special needs, such as the elderly or disabled, in all zoning districts that allow dwellings.
- Promote the location of grocery stores and other service businesses in higher-density neighborhoods. Having shops and services within walking distance is an important amenity of in-town living. In addition to promoting retail stores on the ground level of apartment buildings, zoning regulations should provide incentives for locating full-service grocery stores in high-density residential neighborhoods. An essential element of the higher-density livable neighborhood, grocery stores require much more floor area and service facilities than the typical retail use and therefore warrant special incentives.

### 3.4 THE PACIFIC'S LEADING CITY

According to the Vision, the Honolulu of 2025 will be “the Pacific’s leading city and travel destination.” This section addresses the importance of the PUC to the economy of Oahu and the State as a whole, and sets policy relating to the central business and industrial areas of the PUC.

**Section 3.4.1** examines economic issues relevant to the PUC, especially as they relate to planning and land use. **Section 3.4.2** sets forth policies.

#### 3.4.1 EXISTING CONDITIONS, ISSUES, AND TRENDS

In 2000, the PUC had approximately 380,000 nonconstruction jobs, or almost 78 percent of Oahu’s total jobs. The City’s 2025 projections show the number of PUC jobs increasing by 20 percent. By comparison, jobs in Ewa are projected to increase by over 200 percent. While the PUC’s share of Oahu employment will decline to about 70 percent by 2025, the PUC will remain by far the most important center of economic activity in the State.

In general, the PUC is zoned to permit the expansion of office and retail functions in and around existing commercial nodes and corridors. Although there is an adequate supply of land to support future expansion, provisions need to be made for moderate expansion of visitor facilities and for the continued viability of military, transportation, and industrial districts.

The major job centers of the PUC can be divided into two general areas:

- The **Pearl Harbor area**, reaching from Aliamanu to Pearl City. This area includes the various military bases and functions centered around Pearl Harbor, Fort Shafter, and Hickam Air Force Base. It also includes Aloha Stadium, the regional commercial activities centered around Kamehameha Highway, and the industrial areas at Waiawa, Waiau, Bougainville, and Halawa.
- The **Honolulu area**, reaching from Honolulu International Airport to Waikiki. This area includes the state’s major commercial harbor and airport, Downtown Honolulu, the Civic Center, Ala Moana, Waikiki and the University of Hawaii at Manoa. Major industrial activities are located around Honolulu Harbor, stretching west to Mapunapuna.

##### 3.4.1.1 The Urban Waterfront

As demonstrated in leading cities throughout the world, recapturing visual and physical access to the urban waterfront can stimulate economic renewal and be a source of civic pride. Waterfront redevelopment can bring



vitality and business to commercial centers. There are opportunities for waterfront renewal around both Honolulu Harbor and Pearl Harbor.

The development of Aloha Tower Marketplace opened an avenue to the Honolulu waterfront and demonstrated the potential of the harbor to attract commercial and recreational activity. Lands fronting the harbor are a prime site for new commercial, hotel, and residential development. Increased entertainment and recreational opportunities along the waterfront will benefit from the patronage of Downtown workers and residents. Revitalization of the waterfront will in turn lend impetus to redevelopment in Iwilei.

The major impediment to revitalizing the Honolulu waterfront is Nimitz Highway. Carrying a large volume of traffic on six through lanes, Nimitz effectively acts as a physical and visual barrier cutting off the waterfront from *mauka* pedestrian travel. To address increasing traffic volumes in this corridor, there is a current State proposal to extend the H-1 viaduct over Nimitz from Middle Street into Downtown. Given that this would create a virtual wall and would severely detract from, if not forever preclude, renewal of the Honolulu waterfront, as an alternative, it may be desirable to have a bypass highway that would serve Sand Island and the Nimitz industrial corridor and route Waikiki-bound through-traffic away from Downtown.

In the Aiea-Pearl City region, Pearl Harbor's East Loch is a major visual feature and potential recreational asset for the region, but the types of urban development that currently occupy the lands *makai* of Kamehameha Highway obstruct visual and physical access to the shoreline. In some locations along the shoreline, perimeter fencing and walls surround large industrial and commercial buildings. Reopening physical and visual access to the East Loch shoreline provides an important opportunity to revitalize and enrich the Aiea-Pearl City area.

### 3.4.1.2 Visitor Industry

The visitor industry is expected to continue to be the primary income generator through the year 2025. Directly or indirectly, the visitor industry influences the lives of nearly all Oahu residents. Policies affecting the industry must take into consideration the needs of residents as well as the quality of the visitor's experience.

The visitor industry in Hawaii is greatly affected by economic conditions in overseas markets, especially the Japanese and U.S. West Coast markets. While economic conditions tend to be cyclical, the State and City 2025 visitor projections are premised on a long-term average rate of growth of one to two percent per year.

Issues currently affecting the industry and facilities in the PUC include:

- **Changing objectives and expectations of visitors.** Recent surveys indicate that the majority of visitors are no longer coming to Hawaii primarily for sun and surf, but are now more interested in shopping, cultural, and environmental experiences.
- **The impact of the Convention Center on visitor units.** The Convention Center is expected to attract larger numbers of visitors to Honolulu. As both western and Asian travelers will favor Honolulu as their destination, the increased numbers of visitors will create demand for additional visitor accommodations.
- **The need to upgrade Waikiki.** Waikiki is competing in the global marketplace and, as a mature destination, needs to be refurbished and improved. In addition to upgrading streets and public spaces, the City and State need to adopt policies that will elicit private reinvestment in Waikiki's physical plant.
- **Market acceptance of Oahu's secondary resort areas.** City policies direct growth in the visitor industry to Makaha, Kuilima, and Ko Olina, but these areas have been slow to develop. Unless development of these resort areas accelerates, there may be additional demand for new visitor units in the PUC.



Existing zoning allows hotel uses in the following parts of the PUC:

- The Resort Mixed Use Precinct of the Waikiki Special District – generally, the *makai* portions of the District. In addition, the *mauka* portions of the District have numerous older hotel and resort condominium units in use as visitor accommodations.
- The City’s Central Business Mixed Use District, which applies to the Downtown business district.
- Industrial districts near Honolulu International Airport, *makai* of Nimitz Highway.

The number of visitor units in the PUC is projected to grow from approximately 34,600 units in the year 2000 to approximately 37,800 units in 2025<sup>2</sup>. This represents approximately 28 percent of the projected islandwide increase in visitor units between 2000 and 2025. About 70 percent of the islandwide increase is projected to occur at two planned major resort areas outside of Waikiki – at Ko Olina in the Ewa region and at Kuilima in the Koolauloa region. While the projection follows the City’s official growth policy and reflects build-out of lands zoned for resort development, a strong demand for Oahu resort destinations outside of Waikiki is as yet unproven.

Given that Waikiki is substantially built out, other PUC sites outside Waikiki will be needed for new hotels. The preferred approach for additional visitor accommodations is to provide new hotels near the Convention Center and the Downtown waterfront for both business travelers and visitors attending conventions, and to allow smaller facilities (i.e., inns and lodges) within other “town center” areas in the PUC for visitors who prefer alternatives to the typical hotel properties found in Waikiki. In addition, the demand for bed-and-breakfast (B&B) establishments should be recognized. B&Bs are not only popular with visitors, but they also generate income directly to local families. Unlike houses that are rented directly to visitors (known as transient vacation rentals or TVUs), a B&B is an accessory unit within a residence, and the B&B owner is present to assist and supervise the visiting party. The proposal to allow B&Bs under specific standards and permitting procedures should be reexamined in consultation with interested communities.



**FIGURE 3.10: WAIKIKI.** Visitors and residents alike enjoy the widened promenade along Kuhio Beach in Waikiki. Vitalized through ongoing physical improvements, Waikiki continues to be a world-leading urban beach resort and Hawaii’s most popular visitor destination.

<sup>2</sup> From “Department of Planning and Permitting 2025 Land Use Forecast”, Department of Planning and Permitting, City and County of Honolulu, 2000.



**3.4.1.3 Technology Businesses, Office Facilities**

The PUC is the economic center of the State. State and City policies call for diversifying the economic base by attracting businesses in scientific and technological fields – knowledge-based industries that provide higher paying jobs. The fields include telecommunications, marine resources, natural energy, and health sciences. Stimulating particular types of economic activity may require incentives and subsidies typically delivered through the State of Hawaii. Existing land use policy and zoning provides an adequate supply of land to accommodate potential new development.

New manufacturing and industrial activities associated with technology-based businesses should locate in districts planned for industrial use. Many of these new businesses will migrate to Ewa, where there is a substantial amount of land available for lease at lower rates than in Honolulu or Pearl City.

Leading-edge research enterprises and the business operations of technology-based businesses, however, may wish to locate in central Honolulu near the University of Hawaii's Manoa campus, other universities, and the leading hospitals. Enterprises combining laboratories and offices may want to locate near other office facilities. The UH Medical School is building a new campus in Kakaako with the specific intent of collaborating with hospitals and other research institutes in order to attract research projects and funding. Kamehameha Schools is considering the development of a private high-technology campus on adjacent properties.

Between 1975 and 1995, Honolulu added new office buildings totaling over four million square feet of rentable space. Combined with the economic slowdown, this resulted in a surplus of office space through the 1990s. Based on projected increases in office employment for the next 20-25 years, there will be demand for an additional 1.2 million square feet of floor area. The existing supply of vacant and underutilized land zoned for business use – principally in Kakaako, Downtown, and other parts of central Honolulu – will be more than sufficient to meet future needs.

**3.4.1.4 Military, Airport, Harbor, and Industrial Uses****MILITARY INSTALLATIONS**

Military installations within the PUC include the Pearl Harbor Naval Base, Hickam Air Force Base, and Fort Shafter Military Reservation (Army). For the most part, land use patterns on military bases are compatible with adjacent civilian uses. For example, Hickam's airfield shares runways with the Honolulu International Airport. At Pearl Harbor, the Rainbow Bay Marina, which is the Navy's recreational marina, is located next to the Aiea Bay State Recreation Area and provides a visual and functional transition from the industrial Pearl Harbor Naval Shipyard.

The largest housing areas for military families – Aliamanu Crater, Fort Shafter, and Moanalua Terrace – contain community services similar to those of nearby civilian residential neighborhoods, such as elementary schools, child care centers, community shopping centers, and a variety of recreational facilities.

A better integration of military and civilian land uses and circulation routes could be achieved by relocating the Navy Public Works Center to an area within Pearl Harbor Naval Base closer to the Shipyard. The current site could be redeveloped for housing, linking the adjacent Moanalua Terrace and Aliamanu residential neighborhoods.



## HONOLULU HARBOR AND ENVIRONS

The land areas most directly influenced by Honolulu Harbor are *makai* of Nimitz Highway, including the *mauka* portions of Sand Island (Anuenue). Maritime industrial uses are concentrated in the portion of the Harborfront between Pier 15 and Sand Island Access Road.

Due to new efficiencies in retailing and shipping, the demand for warehousing near Honolulu Harbor has decreased. This trend enables the conversion of the Diamond Head portions of the harbor, between Piers 1 and 15, for expanded recreational and commercial uses and maritime passenger travel, as envisioned in the 1989 *Honolulu Waterfront Master Plan*. A prerequisite to full development of the waterfront for commercial and recreation activities, however, will be the prior development and modernization of maritime support facilities.

## HONOLULU INTERNATIONAL AIRPORT AND ENVIRONS

Since there is typically high turnover in air freight storage and the items stored are less bulky, aviation warehouse needs are even lighter than in the harbor area. The industrial-type uses associated with the operation of the airport (e.g., aircraft storage and repair and cargo handling) are mostly contained within the grounds of the airport itself.

The airport vicinity attracts a wide range of uses, including hotel accommodations for transiting passengers and crew, businesses offering services related to air travel, and other businesses that prefer to locate their administrative offices near their operation centers and storage facilities rather than in the financial or retail districts. As a result, a mix of commercial and industrial uses is appropriate in this area.

### 3.4.1.5 Aiea-Pearl City Town Centers

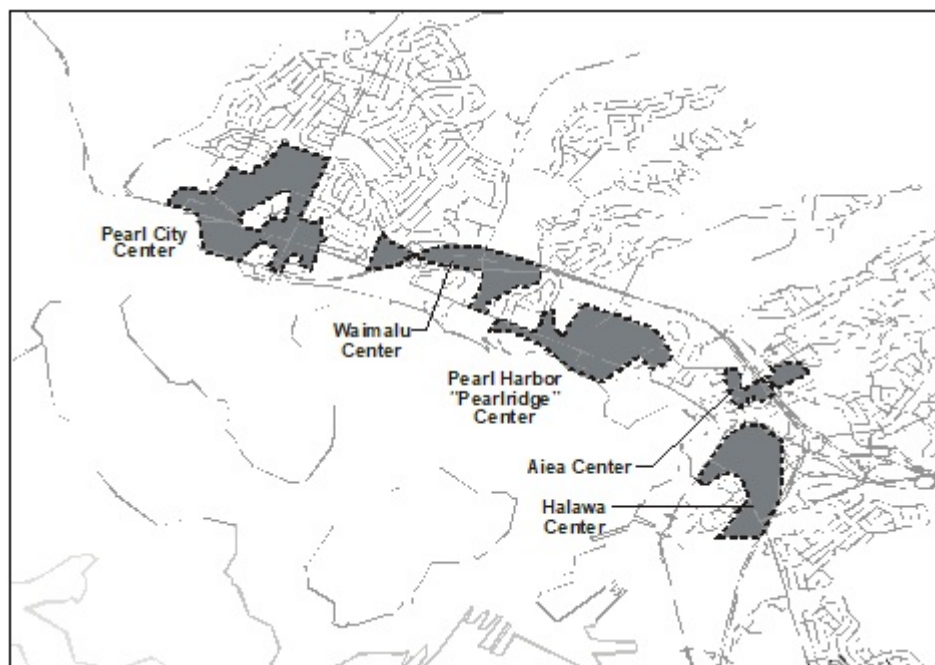
While there are pockets of older neighborhoods in Pearl City and Aiea, most of the region's urban development occurred since the early 1950s. As a result, the land use pattern and circulation system are oriented to the automobile as the primary mode of transportation. Retail stores, services, and commercial entertainment have self-contained parking and are located within shopping centers and on automobile-dominated highway frontages rather than along commercial streets with a pedestrian and transit orientation. Nevertheless, the development pattern differs from the typical post-1950s suburb in that it contains five significant clusters of commercial, institutional, and high-density residential development, referred to below as "town centers" (see **Figure 3.11**):

- **Halawa Town Center**, the focus of which is Aloha Stadium, also contains several apartment complexes and two shopping centers – one entertainment-oriented and the other neighborhood-oriented.
- **Aiea Town Center** consists of a neighborhood-oriented commercial center, the former site of the Aiea Sugar Mill (which is being redeveloped as a community center), schools and other community facilities.
- **Pearl Harbor Regional Town Center**, commonly called "Pearlridge" after the name of the large regional shopping center that is located there, encompasses intensive retail and office commercial developments, high-density apartment buildings, light-industrial uses, a medical complex and various community facilities. Central open space features of this area include a large watercress farm and shoreline frontage along Pearl Harbor's East Loch.
- **Waimalu Town Center** is a smaller, neighborhood-oriented commercial center that includes some community facilities. The Newtown Business Park, consisting primarily of light industrial uses, lies on the *mauka* edge.
- **Pearl City Town Center** contains a mix of neighborhood-oriented (Pearl City Shopping Center) and regional (Pearl Highlands Center) commercial uses, apartment buildings, a residential subdivision, and



civic and community facilities. The Navy's former Manana storage area is adjacent and planned for redevelopment and conversion to industrial-commercial mixed-use.

Some of the older, "town center" sections of Aiea and Pearl City exhibit the characteristics of a traditional commercial street, with storefronts facing the sidewalk and civic buildings, schools and a community park clustered near the commercial center. However, the sense of a community-oriented center is relatively lacking in areas that developed or redeveloped after the 1950s. The Pearlridge Shopping Center, for example, is a vibrant center, but its activity is focused inward, out of view from the concentration of high-density residential uses and other commercial developments that surround it. A commercial development pattern that mixes residential, commercial and institutional uses within relatively short distances and exposes building entrances and activity areas to the street, sidewalks, and other public places to invite passersby is much more likely to be recognized as a "community-oriented center."



**Figure 3.11: Location of Town Centers in Aiea-Pearl City.**

### **3.4.2 POLICIES**

To be the Pacific's leading city and to attract high-technology businesses as well as conventions and visitors, the PUC needs to enhance those qualities that make it an attractive place to do business. Following are policies for enhancing the PUC's commercial centers while providing for moderate growth and maintaining essential military, industrial and transportation functions.

#### **3.4.2.1 Honolulu and Pearl Harbor Waterfronts**

Reconnecting the PUC's main commercial centers to the Honolulu and Pearl Harbor waterfronts would enhance livability, create new residential and commercial opportunities, and enliven the PUC. The following policies have this common purpose:



- ***Create public open space along the Pearl Harbor waterfront and strengthen the physical and visual connections between the urban center and the water.*** As shown on the Open Space and Land Use Maps, the *Development Plan* calls for converting lands along the East Loch shoreline to park use. Areas to be converted include (a) McGrew Point, at such time as the Navy carries out plans to decommission housing there; and (b) the area currently in industrial use *makai* of Kamehameha Highway between Neal S. Blaisdell Park and Lipoa Place, which the City could acquire through eminent domain. Where conversion to park use is not feasible, encourage complementary redevelopment with incentives for higher zoning in return for view corridors, extra open space, public amenities, and public access to the shoreline.
- ***Improve mauka-makai pedestrian and bicycle circulation across Kamehameha Highway.*** Developing physical access to the Pearl Harbor waterfront demands substantial improvements to pedestrian and bicycle access across Kamehameha Highway.
- ***Redevelop the Downtown/Iwilei waterfront.*** Reroute through traffic to a new Sand Island parkway and harbor tunnel thoroughfare, and replace the *makai* portion of Nimitz Highway with a new shoreline pedestrian promenade and mixed-use commercial/recreational/residential complexes. Adopt appropriate measures to enhance the attractiveness of the Nimitz corridor and public and private responsibilities to implement and maintain such improvements. By creating a new parkway across Sand Island and a tunnel beneath the Harbor entrance, Airport-to-Waikiki traffic (and all other through-traffic not destined for the Iwilei/Downtown area) will bypass this unsightly industrial section and significantly reduce the traffic demand on Nimitz Highway through town. This will enable the Ewa-bound *mauka* section of the highway to be converted to a two-way local access street. It will also allow the Waikiki-bound *makai* section to be converted to a major shoreline promenade and waterfront activity area, providing space for restaurants, shops, indoor and outdoor entertainment, and recreation areas. This area would also hold potential for development of low- to mid-rise housing.

### 3.4.2.2 Visitor Facilities

The following policies are intended to guide the development of visitor facilities within the PUC.

- ***Adopt and implement a plan for a vibrant and livable Waikiki.*** This plan needs to address the quality of the resident experience as well as the quality of the visitor experience. Based on development parameters set by the Waikiki Special District, the plan should encompass mobility, the quality of the street environment for pedestrians, public spaces, the scale and design of new buildings, and Waikiki's relationship to the Convention Center and neighboring districts.
- ***Support attractions that are of interest to both residents and visitors in the Ala Moana/Kakaako/Downtown corridor.*** Opportunities include State-sponsored waterfront commercial and cultural attractions around the Kewalo Basin area; retail/entertainment facilities around Ala Moana Center, Victoria Ward Centers, and Kamehameha Schools properties; and improvements to serve visitors in the Capitol District, Aloha Tower, and Chinatown.
- ***Provide opportunities for the development of visitor units in the Ala Moana/Kakaako/Downtown corridor.*** Hotels serving the Convention Center should be within a 5-minute walk (one-quarter mile) and located on commercially zoned parcels along major thoroughfares. Those in the Downtown area should be in the area zoned BMX-4 or the Aloha Tower complex.
- ***Provide a transit link along the Ala Moana/Kakaako/Downtown corridor.*** The City should assure that there is convenient transit service between visitor accommodations and the visitor attractions along the corridor. Visitor-oriented transit should utilize at-grade trolley types of vehicles and could be publicly or privately operated.
- ***Provide opportunities for the development of smaller-scale visitor accommodations (i.e., inns and lodges) in existing commercial centers.*** These could serve resident and business needs (visiting family,



friends and business associates) as well as visitors looking for an alternative to the resort enclave. Potential areas include Kapahulu, Kaimuki, the King/Beretania corridor, Kapalama, Pearlridge, and Pearl City. Development of such facilities should consider the community's preferences and be integrated with the surrounding neighborhood.

- ***Allow Bed & Breakfast establishments (but not transient vacation units or TVU's) in residential neighborhoods.*** With adequate parking, community involvement, and other regulatory controls, B&Bs provide a highly integrated, well-supervised, low-impact form of visitor accommodation. For residents, operating a B&B is a viable home occupation and a means to retain and reuse homes in older neighborhoods.

### 3.4.2.3 Technology Businesses, Office Facilities

The following policies are intended to guide the development of office and related uses in the PUC.

- ***Stimulate development of high technology and knowledge-based industries.*** Take advantage of Honolulu's active urban ambience to attract high-technology businesses. Use State lands in Kakaako for a campus dedicated to biomedical research and other high-technology businesses. Encourage investment in infrastructure in commercial buildings to accommodate and attract high-technology and biotechnology businesses.
- ***Encourage street-front retail.*** Office buildings should have retail stores, entrances, and windows fronting the principal street.
- ***Provide usable open space.*** Zoning requirements and bonus provisions for open space associated with larger office buildings should specify design guidelines for usable plazas, parks, and arcades. Key elements of usable open space are enclosure, shade, seating, and location at street level.



**FIGURE 3.12: AIEA-PEARL CITY REGION.** The vision of the region's future calls for reinforcing town centers and opening visual and physical access to the Pearl Harbor waterfront.



#### 3.4.2.4 Military, Airport, Harbor, and Industrial Areas

The following policies are intended to assure the long-term viability of military, transportation, and industrial functions:

- ***Support continuation of military uses.*** National defense objectives and budget priorities determine the military bases and functions located in the PUC and the state as a whole. The City should support long-range land use planning by the military services and coordinate with them to achieve common goals of employment, housing, and recreation.
- ***Integrate civilian and military residential communities.*** The City should work with the military services to link adjacent residential communities through the use of connecting roadways, bikeways, walkways, landscape features, or both architectural scale and character.
- ***Allow a mix of industrial and commercial uses.*** Allow a broader mix of commercial uses in the Airport and Bougainville industrial districts. The Airport district should include office, hotel, and retail uses that are compatible with airport operations, as well as existing light industrial uses. The Bougainville district should include uses that support surrounding residential neighborhoods.
- ***Enhance Honolulu Harbor and harbor-related uses.*** Reserve areas around Honolulu Harbor, particularly around Kapalama Basin and the Sand Island container yards, for harbor-related uses.
- ***Support industrial uses in Kalihi-Palama industrial districts.*** Commercial uses along the Nimitz, Dillingham, King, Kalihi, and Waiakamilo corridors should be recognized and encouraged. In industrial districts where residential uses have endured for many years – i.e., Kalihi Kai and Kapalama – such uses should be allowed to continue, and should be rehabilitated and improved.
- ***Promote compatibility with the surrounding urban and natural environment.*** Where industrial uses are mixed with or adjacent to residential communities or natural areas, mitigate visual, noise, and other environmental impacts by adopting performance standards.
- ***Support development of adequate warehousing facilities to support increased economic activity.*** Encourage development and maintenance of warehouse space of sufficient quality to prevent shortages and support growing businesses

#### 3.4.2.5 Aiea-Pearl City Town Centers

A separate set of policies is needed to address the problems of the shopping center-based urban pattern in this region. Following are policies for stimulating the evolution of vibrant, people-oriented town centers that provide a strong sense of community.

- ***Define the role of town centers.*** Establish the “Pearlridge” area as the Pearl Harbor Regional Town Center, and strengthen the physical and visual connection between this urban activity center and the Pearl Harbor waterfront. Other town centers at Pearl City, Waimalu, Aiea, and Halawa should serve as more localized or specialized activity and service areas.
- ***Promote mixed land use.*** Town centers should support some form of mixed land use to respond more flexibly to market needs and to reduce dependency on the private automobile for local travel. The Pearl Harbor Regional Town Center should be designated for a greater diversity of uses than the other town centers, emphasizing an integration of medium- or higher-density residential and commercial development. Land use designations and design standards should be oriented toward assuring compatibility of building forms and uses, creating street connections, and providing a smooth transition between town centers and adjacent residential neighborhoods.
- ***Facilitate pedestrian, transit, and bicycle improvements.*** There should be major improvements to transportation facilities and services, with particular emphasis on pedestrian, bicycle, and public transit



modes along Kamehameha Highway, and commuter travel on the H-1 Freeway and in the Aloha Stadium vicinity (see Figure 3.17: Pedestrian Network Concept for Pearl Harbor). Design standards for new development in the town centers – especially the Pearl Harbor Regional Town Center – should encourage pedestrian and transit travel.

### 3.5 DEVELOP A BALANCED TRANSPORTATION SYSTEM

The fifth Key Element is to “develop a balanced transportation system that reduces reliance on cars and improves alternate modes connecting neighborhoods and activity centers.” Full development of the Primary Urban Center, as called for in the General Plan, can only be achieved with the support of a well-conceived transportation system that is tightly integrated with land use policies and regulations.

**Section 3.5.1** reviews the existing conditions, issues, and trends that shape the PUC’s transportation system. **Sections 3.5.2** and **3.5.3** set forth policies and guidelines.

#### 3.5.1 EXISTING CONDITIONS, ISSUES, AND TRENDS

##### 3.5.1.1 Current Transportation Policy

#### OAHU REGIONAL TRANSPORTATION PLAN

Oahu’s official long-range surface transportation strategy is documented in the *Oahu Regional Transportation Plan*, a federally mandated document that is updated every five years by the Oahu Metropolitan Planning Organization (OMPO). OMPO includes representation from the City Council, the State Legislature, and the City and State transportation agencies. The most recent update – titled *Transportation for Oahu Plan 2025* (TOP 2025) – was adopted by OMPO in April 2001.

The land transportation strategy set forth in *TOP 2025* is to minimize the increase in automobile congestion by making selective improvements to roadway and intersection capacities, implementing intelligent transportation systems and travel demand management (TDM) strategies, and developing a bus rapid transit (BRT) system for urban Honolulu and the Leeward commuter corridor. *TOP 2025* lists transportation improvement projects to be funded in the next couple of decades, and most of this investment is designated for the PUC. The in-town portion of the BRT by itself represents almost one-quarter of the proposed islandwide expenditures.

#### ISLANDWIDE MOBILITY CONCEPT PLAN

Prior to the preparation of *TOP 2025*, the City and State transportation agencies launched “Oahu Trans 2K: A Community-Based Transportation Vision for the 21<sup>st</sup> Century.” Following several rounds of community workshops held throughout Oahu, the City department of transportation services published the *Islandwide Mobility Concept Plan* (March 1999). While not formally adopted, this document described the conceptual framework for the major transportation projects later incorporated into *TOP 2025*. In the PUC, the most significant projects were the BRT and its components and the Sand Island Bypass Road/Nimitz Parkway. In addition, the *Concept Plan* addressed several neighborhood-level initiatives that were already in early stages, such as the traffic-calming program and localized transit service using community circulator routes.



### 3.5.1.2 Automobiles

The automobile dominates Oahu's and the PUC's transportation system. In the post WWII era, the automobile profoundly shaped urban development, stimulating the creation of bedroom communities and a distinct separation of residential and employment-related land uses. With its major employment and commercial centers, the PUC attracts many more vehicle trips than it generates. Automobile dependency therefore raises a number of issues and concerns about the quality of life within the PUC over the next two to three decades.

#### TRAFFIC CONGESTION

The prevalently dispersed pattern of land uses makes people dependent on the automobile for an increasing share of daily trips. Along with commuting, this places great stress on the traffic capacity of the road infrastructure. About 80 percent of all trips are not work related – i.e., for social, recreational, and utilitarian (school, shopping, dentist) purposes. Although commuting to work represents a small percentage of the total number of trips, peak-hour congestion is a major problem because over 60 percent of Honolulu commuters drive alone to work. In 1998, the average occupancy rate for vehicle trips during the peak morning commute (between 6 and 9 am), was 1.24 persons per car.

Most of Oahu's households have access to a car, and an increasing number have access to two or more cars. Following national trends, the number of licensed drivers on Oahu is increasing at over twice the rate of population growth. This rate of growth is likely to increase in the next couple of decades as the "Y" generation cohort begins to drive. As a conservative estimate, there will be 22 percent more drivers on Oahu by the year 2020, exclusive of visitors who rent cars during their stay. If alternative modes of transportation are not made more convenient and practicable, more drivers will stimulate demand for more vehicles and generate more roadway congestion.

As highways become more congested, commuters try to find alternate routes by "shortcutting" through residential neighborhoods, essentially trying to bypass the bottleneck much like water flowing around an obstruction. PUC neighborhoods bear the brunt of this impact, which is particularly acute in the Aiea-Pearl City area and in the Diamond Head-Kaimuki area.

#### DEVELOPMENT OF ROADS AND PARKING

City and State transportation agencies find it ever more challenging to increase roadway capacity to accommodate the high rate of growth in automobile traffic within the PUC. Acquisition of right-of-ways to build new or widen existing thoroughfares is severely constrained by high costs and limited space. Proposals to "double-deck" the H-1 Freeway and Nimitz Highway have encountered strong political opposition and have been shelved.

Most of the attempts to add roadway capacity are confined to existing right-of-ways. Many of Honolulu's major streets were converted to one-way traffic in the 1970's. More recent initiatives to improve traffic flow include adjustments to traffic signals, modifications to intersections, and conversion of parking lanes to traffic lanes.

However, roadway capacity improvements come at a cost to other modes of travel and to the quality of life in the affected neighborhoods. Several of the major roadways within the PUC, principally the major east-west highways and arterials, act as substantial barriers to *mauka-makai* access and interneighborhood mobility. The following are examples of such improvements:



- Construction of the H-1 Freeway cut through many old neighborhoods and exposed adjacent areas to significant noise, visual and air quality impacts. Many major roadways – including collector streets as well as highways – are inhospitable to bicyclists and pedestrian crossings, particularly for children and the elderly.
- Kamehameha Highway in the Pearl City-Aiea area cuts most of the residential community off from the Pearl Harbor waterfront and its important scenic and recreational amenities.
- The multilane Nimitz Highway isolates the Downtown area from the Honolulu waterfront. Diverting through-traffic on Nimitz Highway to a new Sand Island bypass route would enable the reconnection of Downtown Honolulu to the waterfront and more efficient travel between the Airport and Waikiki.

In addition, several streets in the Downtown/Chinatown area currently have road widening designations that were imposed years ago, which, if implemented, would severely impact the buildings which front them.

While several thousand acres of the PUC are committed to streets, several thousand more are consumed by automobile parking. Based on vehicle ownership figures, the estimated space required to park all vehicles registered to residents of the PUC is more than twice the total amount of existing park acreage in the PUC. This does not include parking for commercial, industrial and institutional uses, which accommodates vehicles from both within and outside of the PUC.

Current City land use policy promotes the construction of private parking facilities. The *Land Use Ordinance* exempts structured parking within buildings from floor area calculations and allows freestanding commercial parking garages in most zoning districts. It also requires new residential projects to provide an average of two off-street parking stalls per housing unit plus provisions for guest stalls in multifamily projects, except in Waikiki and Downtown where only one stall per multifamily dwelling is required. This requirement raises housing costs, since the average construction cost per stall in a parking garage is about \$25,000. Work-based parking is generally required at a ratio of one stall per 400 square feet of space. Employer-subsidized parking stimulates single-occupant vehicle commuting and masks the true cost of parking stalls in Downtown and other commercial areas.

#### ECONOMIC, SAFETY AND PUBLIC HEALTH IMPACTS

Hundreds of millions of dollars are spent each year by the State and the City to operate and maintain Oahu's roadways (\$17.9 billion projected between 1995 and 2020). At the consumer level, cars are expensive to operate and maintain compared to the cost of an annual City bus pass.

The Federal National Mortgage Association has recognized the cost of owning a car and is now experimenting with a "Location Efficient Mortgage" product where homeowners purchasing homes close to transit lines are able to qualify for a higher loan-to-earning ratio. This mortgage product results in increasing the number of people qualifying to purchase a home and makes residing in the PUC more attractive.

Automobiles also have societal costs such as public health hazards, lost time, and productivity from sitting in congested traffic, "hidden" subsidies, and environmental and thermal pollution. An average of 60 persons have been killed in Oahu roadway accidents each year between 1997 and 2000, and thousands more have been injured. Many pedestrian accidents occur along neighborhood streets that are designed more for motorist than for pedestrian safety. Roads designed to highway standards disproportionately endanger children and the elderly. Anecdotal reports indicate a general increase in road-related stress (road rage) due to increasing roadway congestion.

Finally, overreliance on the automobile promotes a sedentary lifestyle, which in turn adversely affects longevity and quality of life. Thousands of acres throughout the region are blighted by elevated noise levels generated by the



automobile. Engine emissions from the automobile are responsible for a range of pulmonary disorders. The combustion of motor fuel produces thousands of tons of particulate matter and spot concentrations of toxic gases such as carbon monoxide. Studies have shown that per capita fuel consumption drops with increases in urban density and mix of uses, as public transit, walking, and bicycling become more desirable modes of transportation.

### 3.5.1.3 Public Transit

#### MUNICIPAL BUS SYSTEM

Honolulu's municipal bus system – TheBus – has over 200,000 passenger boardings per day, and ridership has remained relatively stable over the past several years. The 2000 U.S. Census found that 8.0 percent of Oahu commuters use the bus to get to and from work. The most heavily used routes are within the PUC, and the routes that follow Honolulu's main east-west arterials account for more than half the daily ridership islandwide. Fare box receipts cover 27 percent of total costs to operate TheBus system, with the remaining cost paid primarily out of the City's General Fund.

Much has been done over the years to improve TheBus by building modern vehicle maintenance and baseyards; continually expanding the size of the fleet; adding vehicle design features for passenger comfort and convenience, such as lift entries and bicycle racks; acquiring quieter buses with better emission controls; adjusting and adding routes and schedules; and providing bus shelters. Currently, the City is implementing a “hub-and-spoke” system that is designed to improve circulation within neighborhoods while connecting neighborhoods to “transit centers” along major east-west transit routes.

The potential for improving the service provided by TheBus within the PUC is constrained by its technology. Sharing increasingly congested street and highway lanes with automobiles, buses cannot move any faster than other traffic. Only through the center of Downtown – along Hotel Street Bus Mall – is there a dedicated transit lane.

#### RAPID TRANSIT SYSTEM

To reduce automobile dependency and elevate quality of life, the PUC needs a higher-capacity higher-speed public transit system that can move efficiently through the urban core.

The City is presently pursuing the development of a Bus Rapid Transit System (BRT) that would employ high-capacity vehicles traveling at grade on city streets within central Honolulu and along the H-1 Freeway on a semiexclusive lane with dedicated access ramps from Middle Street to Kapolei. In the future, all or a portion of the BRT system may be convertible to a fixed-rail or elevated monorail system.

To attract ridership, proposed rapid transit routes will be within a five-minute walk from central Honolulu's major activity centers, higher-density neighborhoods, and redevelopment areas. This service area is illustrated conceptually as a “transit corridor” in **Figure 3.13**. Transit service to the neighborhoods outside the five-minute zone will be supplemented by circulator buses to connect passengers to the rapid transit system at transit centers.

### 3.5.1.4 Walking

Walking is the oldest and most basic form of transportation. It is also the most affordable and accessible of all transportation modes. Almost every trip includes a pedestrian phase, even if it only involves walking to and from the parking garage.



In the PUC, particularly on the relatively dry, flat coastal plain of Honolulu, natural conditions are excellent for walking, though shade from the sun is needed during the summer months. The 2000 U.S. Census estimates that 5.6 percent of Oahu commuters walk to work, compared to the national average of 2.9 percent. The City's few promenades and pedestrian paths are well used in the evenings and on the weekends, indicating strong demand for these types of facilities, not only for destination travel, but also for recreation and fitness.

The distance of the trip and its purpose are the principal determinants in an individual's choice to walk or use some other transport mode. Physical and environmental conditions are also important determinants of mode choice. National research shows that people are willing to walk about one-quarter of a mile to work and up to one-eighth of a mile for shopping.

While central Honolulu's climate and topography are ideal for walking, the relatively large physical separation between walking destinations and poor pedestrian infrastructure discourage people from walking. Sidewalks are often narrow, lacking in shade or interrupted by numerous driveways. In many locations, it is unsafe or inconvenient to cross streets and highways. Several public streets have been closed and sold to adjacent owners for the assembly of large "superblocks." This loss of public thoroughfare makes pedestrian routes longer, less direct, and less convenient.

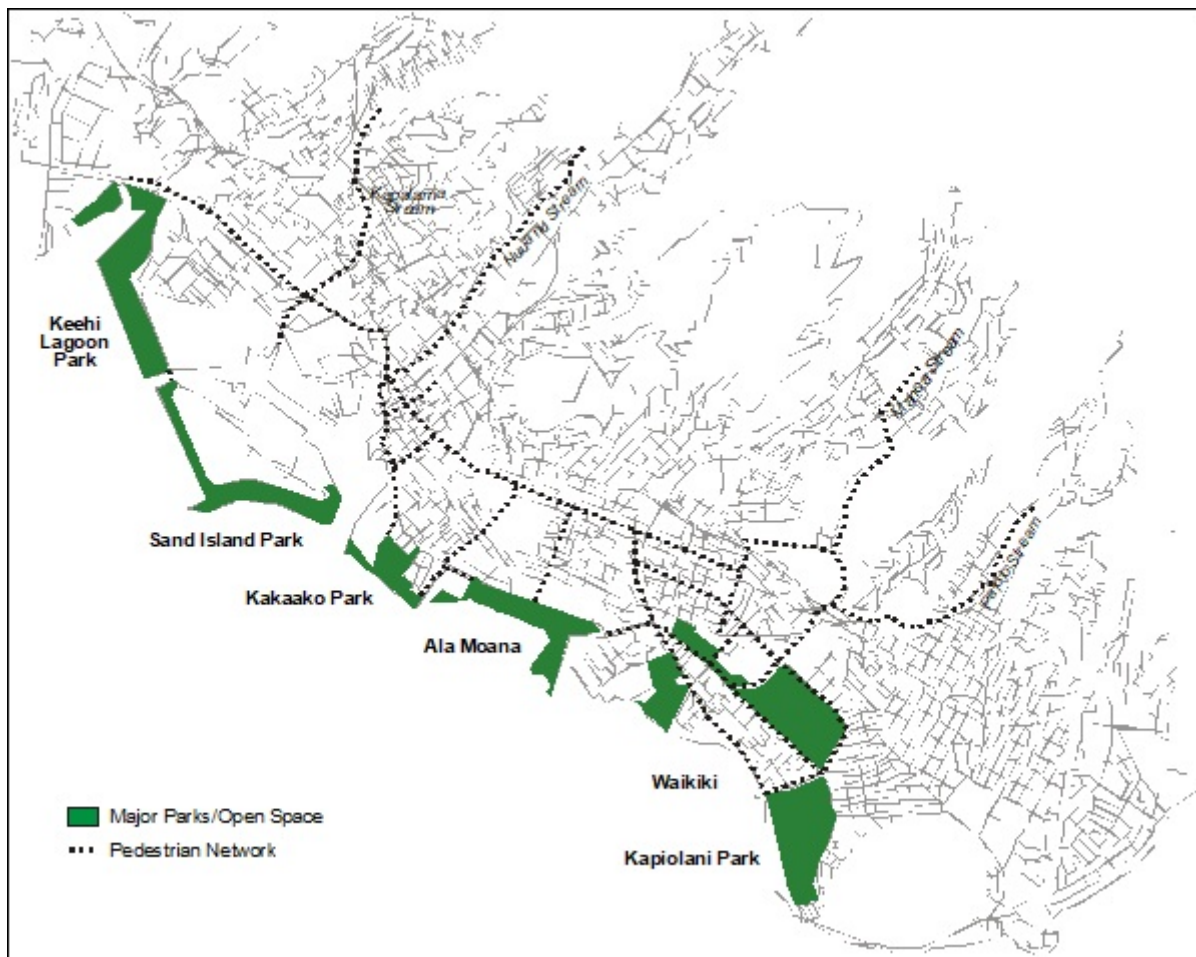


**Figure 3.13: Rapid Transit Corridor.**

To facilitate pedestrian travel, the PUC needs a regional pedestrian network of trails and districts. The purpose of the network is to link neighborhoods and enhance pedestrian mobility within neighborhoods. The network should extend *mauka* to the Koolau Mountain Trail System and *makai* to the shoreline.



Designating pedestrian districts and routes through design features and traffic control measures would establish priority for pedestrians over other transportation modes. Design features might include raised and midblock crosswalks, corner bulb-outs, landscaped medians and traffic islands for pedestrian refuge, broad promenades, public squares, pocket parks, shade trees, and street furniture. Traffic control measures may include adjustment to traffic signal phasing, enforcement of “pedestrian rights” laws, and the use of streets for events such as parades, fairs, and other entertainment.



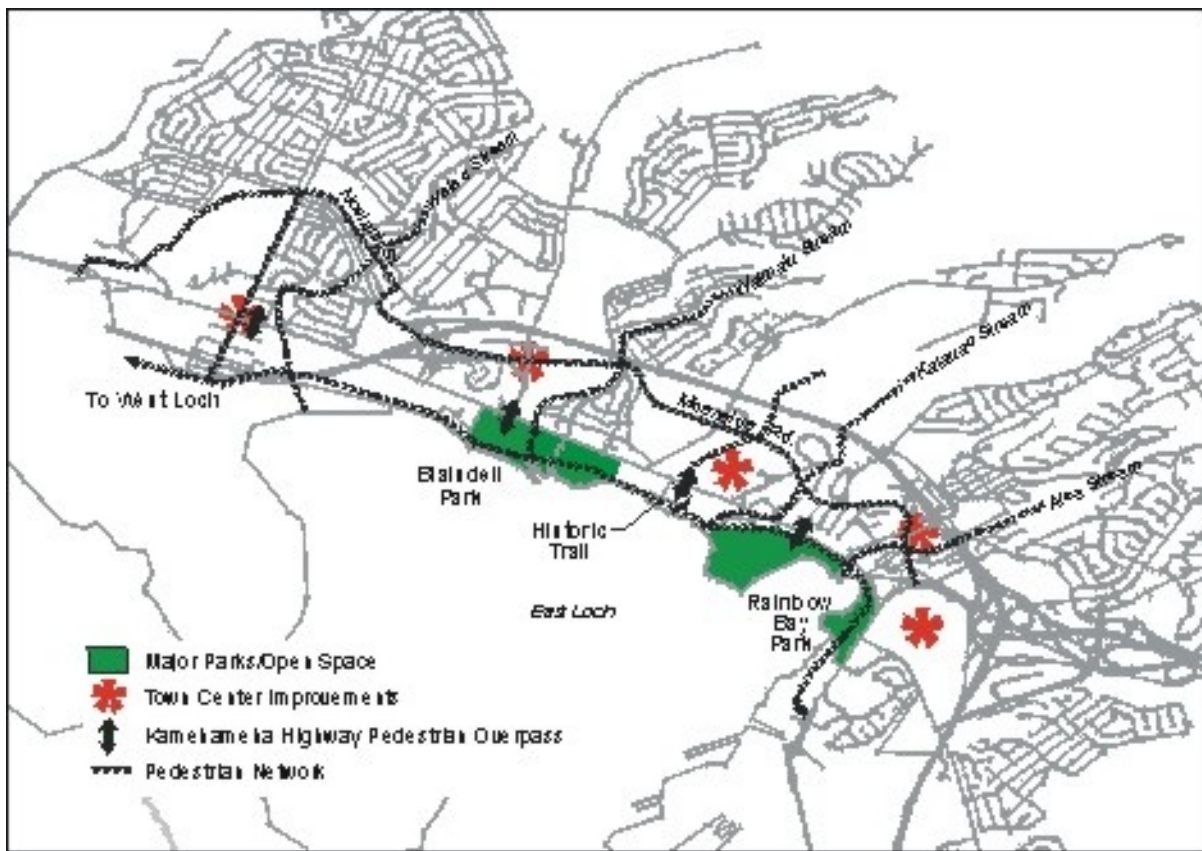
**Figure 3.14: Pedestrian Network Concept For Honolulu.**

Regional pedestrian networks are appropriate for the central Honolulu and Pearl Harbor areas. Districts with existing high levels of pedestrian activity include Waikiki and Downtown. As shown in **Figure 3.14**, the Honolulu pedestrian network concept incorporates shared-use paths along the Kapalama, Nuuanu, Manoa, and Palolo Streams, and the Ala Wai Canal. It also incorporates the *Honolulu Bicycle Master Plan*’s “Lei of Parks” concept, a series of shared-use paths linking the City’s major regional parks (Keehi Lagoon Park, Kakaako Waterfront Park, Ala Moana Beach Park, Kapiolani Park and Diamond Head Monument). Additional elements of the network are new promenades and other pedestrian improvements to city streets (e.g., Punchbowl Street, Nimitz Highway in the Downtown area, Ward Avenue, Young Street, Keeaumoku Street, and Kalakaua Avenue).

The network concept for the Pearl Harbor area (see **Figure 3.15**) focuses on improving pedestrian mobility within and between the town centers of Aiea, Pearlridge, Waimalu, and Pearl City. Improvements along the Pearl Harbor



Historic Trail will link a number of shoreline parks, including the Aiea Bay State Recreation Area, Neal S. Blaisdell Park, and the West Loch Shoreline Park. The addition of “gateways,” as discussed in the *Honolulu Bicycle Master Plan*, will create marked entrances to the Pearl Harbor Historic Trail along Kamehameha Highway. Similar to the Honolulu pedestrian network, shared-use paths along the Waiau, Waimalu, Kalauao and Aiea Streams will increase *mauka-makai* pedestrian access. Finally, pedestrian crossing improvements at Kamehameha Highway will increase access to the commercial areas on either side of the highway.



**Figure 3.15: Pedestrian Network Concept for Pearl Harbor.**

In addition to the regional pedestrian networks, there is an opportunity to create small “pedestrian districts” through focused improvements within existing in-town neighborhoods. Rights-of-way for minor streets in medium- and high-density residential neighborhoods could be redeveloped to give more space to trees, sidewalks, and even small park spaces.

### 3.5.1.5 Bicycles

Bicycle transportation is gaining popularity on Oahu. According to an October 1997 telephone survey, approximately one in four Oahu residents rode a bike within a 30-day period. The 2000 U.S. Census found that 1.0 percent of employees in the City and County of Honolulu biked to work. This is above the national average of 0.4 percent, but well behind “bicycle-friendly” cities such as Portland and Seattle.



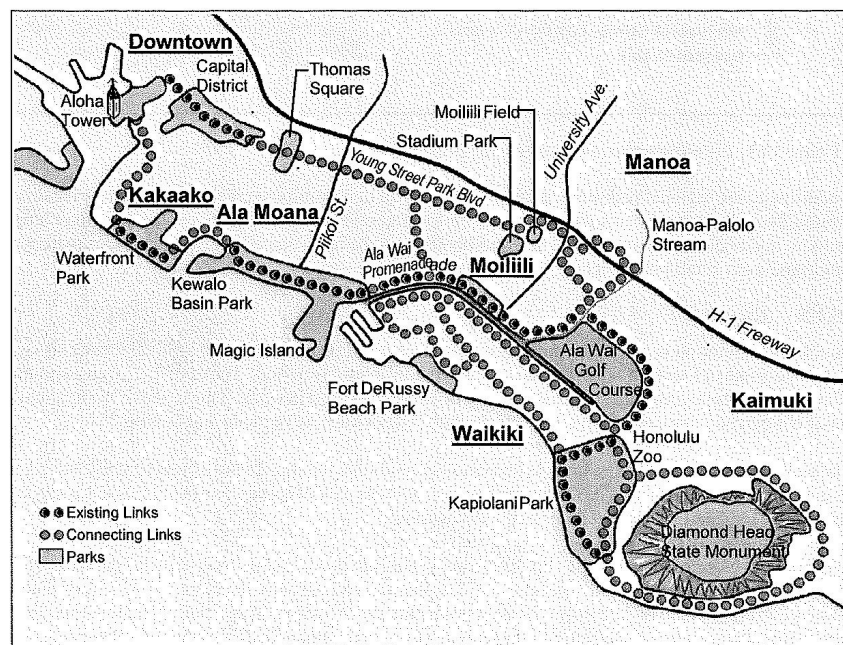
Like walking, the choice to use a bicycle over another mode is a function of the distance to be traveled, barriers during the trip (e.g., lack of designated bikeways), and the lack of appropriate facilities such as secure bike parking, lockers, and shower facilities at the destination.

To encourage bicycle ridership, the City has employed a Bicycle Coordinator, installed bike racks on all its buses and on many of Honolulu's streets, and has planned and partially developed a system of bikeways. There is currently a total of 24.8 miles of bikeways within the PUC. The longest is the Pearl Harbor Bike Path, a shared-use pathway that extends from near Aloha Stadium to Waipio Peninsula, also referred to as the Pearl Harbor Historic Trail (refer to **Figure 3.15**).

## HONOLULU BICYCLE MASTER PLAN

The *Honolulu Bicycle Master Plan* provides a strategy for the bicycle component in the PUC's future transportation system. It identifies an integrated network of on-road bike lanes and off-road shared-use paths that will link people with their favorite destinations. It also provides an array of policy and program recommendations to institutionalize the commitment at all levels of government. The "Lei of Parks" Concept Plan (**Figure 3.16**) calls for creating links between parks by means of shared-use paths designed for recreational bicycle riding. The Plan describes a network of almost 100 miles of new bikeway facility improvements to be implemented over the next 20 years. Three types of bikeway facilities are identified:

- Bike lanes, which typically occupy the outside/curb lane of the street and are identified by a continuous white stripe placed four to six feet from the gutter pan or parking lane
- Bike routes, which are posted streets with wide curb lanes or shared travel lanes along which there is less traffic.
- Shared-use paths, which are typically separated from the road right-of-way. Paths are generally located adjacent to the roadway or within parks or other open space areas, and are used more for recreation than for daily travel.



**Figure 3.16: Bicycle Links in "Lei of Parks" Concept Plan.**



### 3.5.1.6 Water Transportation

The PUC hosts Hawaii's principal commercial port facilities at Honolulu Harbor in addition to facilities at Kewalo Basin, Keehi Lagoon, and Ala Wai Harbor. All are under the jurisdiction of the State Department of Transportation Harbors Division (DOT).

#### OAHU COMMERCIAL HARBORS 2020 MASTER PLAN

The *Oahu Commercial Harbors 2020 Master Plan*, prepared by the DOT, sets the direction for the PUC's commercial harbors. It envisions Honolulu Harbor having a second entrance channel; four container terminals; an interisland cargo terminal; liquid and dry bulk cargo facilities; neo-bulk and break-bulk cargo facilities; backlands and pier facilities for automobile shipments; a domestic fishing village; four cruise ship terminals; two ferry terminals; an excursion vessel terminal; a maritime office building; the Foreign Trade Zone "One-Stop Shop"; adequate berthing for the anticipated number and types of vessels; and the necessary roadways to support these operations.

Plans for Kewalo Basin reflect a gradual transition to ocean-based tourist activities, with commercial fishing being relocated to Honolulu Harbor and Keehi Lagoon. The Hawaii Community Development Authority, with private sector participation, will develop shoreside land uses.

Commercial maritime activity is planned for both Ala Wai Boat Harbor and Keehi Lagoon. At Ala Wai, the "front row" is targeted for offshore activity boats. At Keehi, plans call for two marinas for recreational vessels, commercial fishing boats, and mega-yachts, as well as other berths for larger commercial fishing boats and oil spill response vessels.

Planned land transportation improvements include the development of a perimeter roadway around Honolulu Harbor to alleviate traffic on Nimitz Highway and a new vehicle tunnel under Kalihi Channel to replace the existing Sand Island Bridge.

The *2020 Master Plan* proposes to combine the Inter-Island Ferry Terminal with the new Excursion Vessel Terminal at Piers 26 and 27 in Honolulu Harbor. DOT has conducted several interisland and intrainland ferry projects that failed due to lack of demand. There may be future potential for an interisland passenger and vehicle ferry service with the additional possibility of carrying perishables and high-value freight. DOT's experiments with an intrainland ferry have focused on service between Honolulu and Ewa. Community-based proposals for ferry service between the airport and Waikiki, and along the Ala Wai Canal connecting Waikiki hotels to the Hawaii Convention Center, have not been able to demonstrate economic feasibility. Moreover, ferry or water taxi service along the Ala Wai Canal is constrained by low bridge clearances, the lack of boarding/debarking facilities, and competition with existing recreational uses.

### 3.5.2 POLICIES

- ***Implement land use strategies to achieve a balanced transportation system.*** To improve the quality of life in the PUC and to accommodate growth, development initiatives and regulatory controls should promote the growth of sustainable and appropriate alternative urban travel modes such as transit, walking, and bicycling.
- ***Improve the public transit system, including development of a rapid transit component.*** Improvements to the transit system should be targeted to accommodating trans-PUC travel and making neighborhood



service more convenient. A rapid transit component is needed to serve the high-volume east-west corridor, connect activity centers, and provide transportation capacity in place of increased roadways.

- ***Implement Transportation Demand Management strategies.*** Due to limited land area and high costs, it is increasingly necessary to shift from increasing roadway and parking capacity to policies and practices that reward use of transit and other alternative modes.
- ***Review existing plans and establish priorities for roads and road improvements.*** Conduct a comprehensive review of roads and designate those which should receive priority treatment for transit, bike routes, and pedestrian routes, as well as the principal arterial and collector network for automobile travel.
- ***Implement the Honolulu Bicycle Master Plan.*** Institutionalize the policy that every street and highway on which bicycles are permitted to operate is a “bicycle street,” designated and maintained to accommodate shared use by bicycles and motor vehicles.
- ***Enhance and improve pedestrian mobility.*** Create special pedestrian districts and corridors and a regional network of pedestrian facilities. Comprehensively address pedestrian safety concerns related to vehicle speeding and excessive volumes on local streets and neighborhood collector streets.
- ***Encourage the full use of existing private and public parking garages.*** Encourage private parking garage owners to rent underused parking stalls within commercial buildings and large-scale residential projects.

### 3.5.3 GUIDELINES

- Identify and stimulate transit-oriented development on potential infill and redevelopment properties within the rapid transit corridor. Examples of development stimulators include tax incentives, development code amendments, and public infrastructure investments.
- Undertake a comprehensive review of the City’s street widening plans and reevaluate the use of ROH Chapter 14, Article 17, on streets that the City does not intend to commit funds for street widening. Eliminate travelway widenings that are not necessary, degrade neighborhood character, or are unlikely to be achieved. In older, built-out neighborhoods, consider alternatives for improving safety or pedestrian comfort, but do not involve substantial widening and acquisition of land.
- Implement the Honolulu Bicycle Master Plan’s three priority projects: (1) “Lei of Parks,” a shared-use path connecting the City’s major parks and open spaces (**see Figure 3.16**); (2) Bike Friendly Route No. 1, a continuous, cross town bicycle lane, connecting to the Kalanianaʻole Highway Bikeway in the east and the Pearl Harbor Bike Path in the west; and (3) a series of bicycle access improvements around the various colleges and universities.
- Establish pedestrian districts where walking is intended to be a primary mode of travel, such as within Downtown and Waikiki. Develop specific facility standards for these districts; encourage midblock pathways or arcades; and implement sidewalk improvements, such as widening, paving, and landscaping.
- Work with residents and school organizations to improve pedestrian safety through planning and education efforts, including the development of traffic management plans, construction of traffic calming devices, and the improvement of neighborhood sidewalks and crosswalks.



## **Honolulu - Land Use**



## Chapter 4: Infrastructure and Public Facilities

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This chapter addresses the support systems that are vital to all PUC communities. It is intended to give direction to the long-range functional and facility plans that should be prepared by each of the respective service agencies. Agencies should coordinate the planning and construction of infrastructure improvements so that: (1) services are available when needed; and (2) construction impacts to neighborhoods are minimized.

Many of the PUC's support facilities are part of islandwide or interregional systems—(e.g., water supply and environmental services). Issues relating to sustainability of islandwide or interregional systems cannot be resolved in the context of a single regional plan like this one, but rather need to be addressed in long-range functional plans and – as need be – in the City's *General Plan*.

### 4.1 WATER ALLOCATION AND SYSTEM DEVELOPMENT

#### 4.1.1 EXISTING CONDITIONS, ISSUES, AND TRENDS

The Honolulu Board of Water Supply (BWS) is responsible for the management, control, and operation of Oahu's municipal water system that serves the entire PUC Development Plan area. The BWS system is an integrated, islandwide system with interconnections between water sources and service areas. Water is exported from areas of available supply to areas of municipal demand.

The East and Central sections of the PUC overlie the Honolulu aquifer. The western PUC area overlies the Pearl Harbor aquifer, the largest supplier of groundwater on Oahu and the source of most of the PUC's municipal supply. Pursuant to the *State Water Code, Chapter 174C, Hawaii Revised Statutes*, the State Commission on Water Resource Management (CWRM) has determined that water resources from the Honolulu and Pearl Harbor aquifers may be threatened by existing or proposed withdrawals or diversions of water. Accordingly, the aquifers have been designated as Water Management Areas (WMAs) under the control of CWRM.

#### INTEGRATED RESOURCE PLANNING

Under the *State Water Code*, each county must prepare a long-range “water use and development plan” and submit it to the Commission on Water Resource Management for approval and inclusion as an element of the *Hawaii Water Plan*. The *Oahu Water Management Plan*, prepared by the City Department of Planning and Permitting with the assistance of the BWS, was adopted by the CWRM and the City Council in 1990. More recently, the BWS has undertaken preparation of an “integrated resource plan” that addresses all facets of water resource management, including stream flow.

The BWS will be conducting integrated resources planning by preparing individual Development Plan area watershed management plans that will identify watershed protection projects as well as inventory and develop plans for water use and development. This will meet the State Water Code requirement for preparing County Water Use and Development Plans that are consistent with County land use plans.

#### PROJECTED WATER DEMANDS FOR PUC, YEAR 2000 - 2025

Per Capita Day Demand for Years 2000 to 2025 is estimated at 173 gallons per capita per day. The per capita day demand in the PUC shows a decreasing trend from 1990 – 180 gpcd, a decrease that may be attributed to increasing



density and water conservation measures. Today's best estimated current year use is the year 2000 average day demand of 78.00 million gallons per day (mgd).

Projected residential population growth from Year 2000 (419,333 persons) to year 2025 (485,849 persons) results in a 71,008-person increase of BWS-served population. The resultant year 2025 water demand is expected to be 90.25 mgd, an increase of 12.25 mgd.

PUC DP AREA POPULATION AND WATER DEMAND				
Year	Resident Population	BWS Served Population	Demand (mgd)	Per Capita Day Demand (gpcd)
2000	419,333	50,690	78.00	173
2025	485,849	521,698	90.25	173
Net Increase	66,516	71,008	12.25	

### STRATEGIES TO MEET ADDITIONAL WATER DEMAND IN THE PUC

The BWS is planning to meet additional water demand in the PUC with the long-range integration of multiple water resource strategies consisting of:

- More efficient water system operation and reduced customer water use
- Additional groundwater development and redirecting existing sources in the Pearl Harbor basin
- Desalination of seawater
- Nonpotable water from brackish sources, recycled wastewater, existing surface reservoirs and drainage channels
- Aquifer storage and recovery
- Additional booster pumping, transmission main, and storage facilities

The BWS is planning to meet additional water demand in the PUC by developing new sources in Waipahu and Waiawa, and constructing new trunk lines in central Honolulu. The BWS is aware of the need to integrate water resource planning for urban development, in-stream uses, agricultural uses, possible use of reclaimed water, and the sustainability of groundwater aquifers. Toward this end, the BWS is engaged in a long-range integrated water resources planning effort, in coordination with the State Commission on Water Resource Management (WRM).

#### 4.1.2 POLICIES

- Integrate resource management of all potable and nonpotable water sources, including groundwater, stream water, stormwater, and wastewater effluent.
- Adapt water conservation practices in the design of new developments and modification of existing uses, including landscaped areas.
- Implement upgrades and capacity improvements to serve projected population increases.
- Protect and maintain watersheds to ensure an adequate supply of high quality water with sufficient infiltration recharge into groundwater aquifers.



### 4.1.3 GUIDELINES

- Conserve the use of potable water by implementing the following measures, as feasible and appropriate:
  - Install low-flush toilets, flow restrictors rain catchment barrels, plumbing fixture meters, and other water conserving devices in commercial and residential developments.
  - Promote xeriscaping techniques to reduce water use in landscaping by using various ground cover, drought-tolerant plant material, and efficient irrigation systems in landscaped areas.
  - Conduct extensive leak detection and repair for all public and private water infrastructure systems and residential, commercial, and industrial plumbing. Conduct public education programs on awareness of water conservation.
  - Reuse tertiary treated wastewater effluent, brackish water sources, storm runoff and surface reservoirs for the irrigation of golf courses, parks, other open landscaped areas, and industrial use.
- Develop additional potable groundwater sources in the Pearl Harbor and Honolulu Basin, redirect existing groundwater sources from Central Oahu to the PUC, and develop a desalination plant in Honolulu to meet future demands, maintain sustainability of aquifers, and provide relief from drought periods.
- Create public watershed management partnerships to restore and manage watershed areas and conduct water conservation programs in conjunction with the BWS watershed management and water conservation programs.

Refer to the following table of potential sources to develop additional potable and nonpotable water capacity for the PUC:

<b>POTENTIAL SOURCES OF POTABLE AND NONPOTABLE WATER FOR THE PRIMARY URBAN CENTER</b>	
<b>POTABLE WATER SOURCES</b> Ground Water Source	Estimated Source Yield (Million Gallons per Day)
1. Waipahu Wells III	3.00
2. Waiau Wells (existing redirected source)	2.50
3. Manana Well	1.00
4. Waipahu Wells IV	3.00
5. Waialae Nui Valley Well	0.70
6. Waialae Nui Ridge Well	0.50
7. Kapakahi Well	0.60
8. Waialae West Well	0.25
9. Hoaeae Wells	2.50
10. Ewa Shaft	4.60
11. Honolulu Desalination Plant	5.00
<b>Total Additional Potable Source Capacity</b>	<b>23.65</b>



<b>POTENTIAL SOURCES OF POTABLE AND NONPOTABLE WATER FOR THE PRIMARY URBAN CENTER</b>	
<b>NONPOTABLE WATER SOURCES Nonpotable Source</b>	<b>Estimated Source Yield (Million Gallons per Day)</b>
1. Recycled Wastewater	2.00
2. Nuuanu Open Reservoir Rain Catchment	1.00
3. Ala Wai Canal Stormwater	0.37
<b>Total Additional Nonpotable Source Capacity</b>	<b>3.37</b>

## 4.2 WASTEWATER SYSTEM

### 4.2.1 EXISTING CONDITIONS, ISSUES AND TRENDS

The City's Department of Environmental Services manages the municipal wastewater collection, treatment, and disposal system and provides almost complete service coverage for the PUC through the Mamala Bay Sewerage District. Most of the PUC is within the East Mamala Bay service area, with outflows processed through the Sand Island Wastewater Treatment Plant. The western portion of the PUC, from Halawa through Pearl City, is within the West Mamala Bay service area, with outflows processed through the Honouliuli Wastewater Treatment Plant.

The East Mamala collection system, which is much older than the West Mamala system, experiences significant water infiltration. In some areas of the East Mamala subdistrict, the age of sewer lines is approaching 100 years old.

The PUC's aging collection system is recognized as a major obstacle to the orderly development of the city. In large parts of central Honolulu, new development is restricted due to inadequate sewer capacity. Current wastewater policy requires new developments to pay for the correction of existing system deficiencies, in addition to improvements directly related to the project. In many cases, high costs for off-site wastewater facilities make development economically infeasible.

### 4.2.2 POLICIES

- Implement wastewater collection system improvements to provide adequate service and sound facilities to existing neighborhoods and timely increases in system capacity to areas planned to undergo improvement or change in use.
- Implement adequate and timely upgrades/expansion of wastewater treatment facilities to meet the growth demands of the PUC.

### 4.2.3 GUIDELINES

- Complete current projects needed to correct currently identified service or facility inadequacies for neighborhoods where change in service demand is not anticipated.
- In consultation with adjacent communities, implement the recommendations of the *East and West Mamala Bay Wastewater Facilities Plans* to upgrade treatment and collection systems to serve projected increases in service demands on a timely basis, as such demand increases become identified.



### **4.3 ELECTRICAL POWER**

#### **4.3.1 EXISTING CONDITIONS, ISSUES AND TRENDS**

Hawaiian Electric Company (HECO) operates the electrical utility serving Oahu, subject to regulation by the State Public Utilities Commission. HECO provides electrical power through an integrated islandwide system. While most of the electrical power generated by HECO comes from power plants in the Ewa Development Plan area, HECO maintains two power plants within the PUC, in Waiau and central Honolulu. Power is delivered to customers by a system of transmission and distribution lines.

In 1983, HECO initiated an investigation into the reliability of its transmission and distribution systems. As a result of this investigation, as well as in response to a series of power outages and irregularities, HECO has accelerated its efforts to increase redundancy in the 138 kV transmission system on Oahu. The plan proposes a backup system consisting of several transmission line loops, connecting the various generating facilities and substations over alternative routes.

#### **4.3.2 POLICIES**

- Support retention and upgrade of the Waiau and Honolulu Power Plants as part of a strategic plan to improve the reliability of the PUC's electrical power system.
- Promote and implement energy conservation measures and integrated resource planning.
- Planning and building of new or relocated transmission lines should take into consideration system and cost concerns, and the impacts on the environment. Options to place utility lines underground should be considered, and priorities should be established.

#### **4.3.3 GUIDELINES**

In planning new or relocated substations or transmission lines, the selection of the site or route of such facilities should avoid or mitigate adverse impacts on scenic and natural resources.

### **4.4 TELECOMMUNICATIONS FACILITIES**

#### **4.4.1 EXISTING CONDITIONS, ISSUES, AND TRENDS**

Telecommunications facilities are defined as broadcasting and receiving structures associated with telecommunications services. Telecommunications facilities generally fall into three categories:

- Broadcast: Generally high power, with potentially hazardous exposure to radio frequency (RF) radiation, such as AM radio stations and broadcast television. These should be located away from population centers, in order to avoid radiation hazard.
- Point-to-Point Microwave: Generally high-power, but focused beam for line-of-sight transmissions reduces radiation hazards. These may be located in populated areas with little risk. Because they employ a highly directional beam to transmit from one point to another point, RF radiation risk in the surrounding environment is minimal. Typically, microwave antennas are placed on towers, at some distance from human activity.
- Telecommunications: Generally low-power antennas, serving mobile radio, cellular, personal communications service (PCS), and other "wireless" communications technologies. These are powered



at 100-200 watts for intermittent use, which is far below the level of any possible health impact. (By comparison, a broadcast antenna may be powered at 50,000 watts or more.)

Broadcast towers are regulated under the City's *Land Use Ordinance* according to a national standard for radio frequency protection. This standard forces new broadcast antennas to locate in remote areas.

With the proliferation of wireless communications companies over the past several years, there is a strong demand for antenna sites both in preservation areas and in heavily built-up urban areas. A site may have multiple antennas, especially in built-up areas where coverage is more difficult to achieve. The antennas are generally small and can be camouflaged. Equipment is housed in cabinets or toolshed-like structures, which can also be camouflaged, but because the equipment requires 24-hour air conditioning, it can create noise problems when sited near residences or other uses sensitive to noise.

#### **4.4.2 POLICIES**

- Minimize the visual impacts and potential health hazard of new facilities.

#### **4.4.3 GUIDELINES**

- In general, antennas and other facilities should be required to “blend in” with the surrounding environment. Visually obtrusive installations, such as locating in the middle of an open area or silhouetting antennas on top of ridges, should be avoided.
- In granting land use permits for antennas, observe the following general principles:
  - Wherever possible, antennas should be sited on existing structures, such as tall buildings, athletic field light standards, water reservoirs, or existing towers. Antennas should be flush-mounted when possible.
  - Minimize the number of new towers (towers include lattice structures, as well as monopoles). New towers should be capable of accommodating more than one provider, with clear rules for sharing of costs.
  - Where more than one tower is required, they should be clustered rather than dispersed.

### **4.5 SOLID WASTE**

#### **4.5.1 EXISTING CONDITIONS, ISSUES, AND TRENDS**

The City's department of environmental services manages Honolulu's municipal solid waste system, including the H-POWER resource recovery facility and one sanitary landfill. The military operates two landfills on Oahu, and a private company operates a construction debris landfill in Nanakuli. There are no sanitary landfills within the PUC.

The 1995 *Solid Waste Integrated Management Plan* addresses the need for expanded sanitary landfill capacity. Options include expanding existing landfills and developing new landfills in both Leeward and Windward Oahu. The City is considering opening the PUC's first refuse convenience center at the Keehi/Middle Street Transfer Station to serve residents of the region.

#### **4.5.2 POLICIES**

- Reduce the solid waste stream by encouraging recycling and reuse.



- Reduce dependence on landfills by encouraging alternative waste disposal technologies.

#### 4.5.3 GUIDELINES

- Promote waste recycling by expanding collection facilities and services, and public outreach and education programs.
- Expand the use of automated refuse collection in residential areas.
- Implement new technologies that more efficiently convert solid waste to green energy, thereby reducing the need for landfills.
- In planning new public facilities, include neighborhood recycling convenience centers where feasible.

### 4.6 STORMWATER SYSTEMS

#### 4.6.1 EXISTING CONDITIONS, ISSUES, AND TRENDS

Management of stormwater within the City and County of Honolulu is shared among Federal, State, and City agencies. City responsibilities are shared among the departments of planning and permitting, design and construction, and environmental services.

Polluted stormwater runoff from agriculture, urban development, recreational boating and marinas, and wetlands activities are the leading cause of water pollution in waters across the country and in Hawaii.

The PUC is highly urbanized and relies heavily on the attractiveness of its coastal waters and beaches for tourism, and recreational and cultural uses. Recent studies of Mamala Bay have determined that urban runoff (nonpoint sources) entering Mamala Bay from subembayments such as Pearl Harbor, Keehi Lagoon-Honolulu Harbor, Kewalo Basin, and the Ala Wai Canal is the most significant contributor to the pollution of nearshore waters. The control and management of urban watersheds and protection of its coastal water quality are the leading stormwater management issues in the PUC.

The *mauka*, upland areas of the PUC are drained via natural drainageways and streams that ultimately empty into Mamala Bay. In the east and central sections of the PUC, Moanalua Stream and Kalihi Stream flow into Keehi Lagoon; Kapalama Canal and Nuuanu Stream empty into Honolulu Harbor; and the Manoa, Palolo, and Makiki Streams drain to Mamala Bay via the Ala Wai Canal. In the western section, the major drainageways are Waiawa, Waimalu, and Halawa Streams, which flow into the East Loch of Pearl Harbor. The lower reaches of most of the PUC's major streams have been channelized to facilitate the rapid transport and disposal of runoff from urbanized areas.

The Ala Wai Canal watershed covers a significant portion of the central and eastern portion of the PUC, including most of Waikiki. The Ala Wai Canal is a significant contributor of pollutants to the beaches and nearshore waters of Waikiki. The State Department of Health, in cooperation with City agencies, is implementing a community-based watershed management plan that included the dredging and cleanup of the canal.

#### 4.6.2 POLICIES

- Require methods of retaining or detaining stormwater for gradual release into the ground as the preferred strategy for the management of stormwater. Where feasible, utilize open spaces including parking lots,



landscaped areas, parks, and golf courses to detain or infiltrate stormwater flows to reduce their volume and runoff rates. (*City Council Resolution No. 94-296*).

- Manage stormwater flows through best management practices to minimize stormwater runoff and peak discharge rates.
- Preserve stream and estuarine habitats.

#### **4.6.3 GUIDELINES**

- Revise flood control design criteria to recognize important aesthetic and ecological factors in the design process. Streams should not be channelized except when absolutely necessary to protect existing urban development from flooding.
- Integrate planned improvements to the drainage system into the open space network by emphasizing the use of retention basins, the creation of passive recreational areas, and recreational access for pedestrians and bicycles without jeopardizing public safety. Support development of shared-use paths and parks along Manoa and Palolo Streams, Nuuanu Stream and Kapalama Canal.
- Establish best management practices to guide stormwater management within the PUC.
- Encourage community-based watershed planning, recognizing the array of stakeholders in the PUC's urban watersheds and the important role of education and community involvement in urban watershed management.
- Support the establishment of short- and long-term ecological monitoring programs, particularly those that measure pollutant loading and are directed at improving water quality and quantity in order to conserve, protect, and restore the natural resources of the PUC.
- Maintain and increase permeable surfaces within public right-of-ways to facilitate bio-filtration and groundwater recharge.
- Design and construct stormwater infrastructure in areas that contribute to high inflow and infiltration into the wastewater collection system.

### **4.7 SCHOOL AND LIBRARY FACILITIES**

#### **4.7.1 EXISTING CONDITIONS, ISSUES, AND TRENDS**

##### **4.7.1.1 Schools**

The PUC encompasses three public school districts – Honolulu, Leeward (portion) and Central Oahu (portion) – that consist of over 70 schools, including nine high schools (Kalani, Kaimuki, Roosevelt, McKinley, Farrington, Radford, Moanalua, Aiea, and Pearl City). The PUC also includes a similar number of private and parochial schools.

##### **4.7.1.2 Colleges and Universities**

The PUC hosts the State's largest concentration of public and private post-secondary institutions, including the University of Hawaii at Manoa. Other major campuses include the University of Hawaii's community colleges (Kapiolani and Honolulu), Chaminade University, Hawaii Pacific University's downtown campus and a number of smaller private colleges. The University of Hawaii also operates research and teaching facilities at Kakaako, Honolulu Harbor, Sand Island, and the Waikiki Aquarium.



#### **4.7.1.3 Libraries**

The PUC is served by the State's Main Library located in the Capitol District, two regional libraries in Kaimuki and Pearl City, and branch libraries in Aiea, Kalihi-Palama, Liliha, Manoa, McCully-Moiliili, Salt Lake-Moanalua, and Waikiki-Kapahulu. Also located in the PUC is the Library for the Blind and Physically Handicapped.

#### **4.7.1.4 Trends**

State and City capital improvement budgets are focused on the new growth areas in the State, including development of new facilities in Kapolei. Within the PUC, the general strategy is to maintain existing, usually aging, educational and library facilities.

Public schools in the PUC are some of the oldest in the State, and several, such as McKinley High School, have historic status. Some schools have experienced enrollment declines, reflecting the aging population profile of most PUC neighborhoods. In response, the State Department of Education (DOE) adjusts facility requirements by shifting school service boundaries and/or removing portable classrooms. If there is an increase in school-age children in the PUC, the DOE plans to either readjust service boundaries or implement year-round, multitrack school schedules. The only new facility being considered is a new elementary school at the former Pohukaina School site to serve the expected growth in population in the Kakaako redevelopment district.

One option for schools with declining enrollments is to reuse the facilities for other community needs such as day or senior care, special needs housing, or parks. However, this alternative is sometimes complicated because, while the Department of Education owns the facilities, the land may be either ceded land, leased from the City, or be a fee-owned lot held by the State's Department of Land and Natural Resources. It is also politically unpopular to close schools.

The DOE and the City's Department of Parks and Recreation have had a joint use agreement for many years. Several elementary schools are adjacent to City parks and are used as school playgrounds, but there are sometimes conflicts over scheduling or maintenance responsibilities. The Department of Education prefers to keep secondary school facilities dedicated solely for school use to avoid scheduling problems for its athletic programs, but this would not necessarily preclude community use on weekends, holidays, semester breaks, or late evenings.

University of Hawaii's Manoa campus enrollments are projected to remain stable over the foreseeable future, with undergraduate growth projected for the planned West Oahu campus. UH's current major facility plans within the PUC are redevelopment around Honolulu Community College, and relocation of the Pier 41 Snug Harbor research facility and Marine Mammal Laboratory at Kewalo Basin. Also under consideration for the Kakaako Makai Area are a new medical school campus and a new aquarium that would replace the Waikiki Aquarium.

#### **4.7.2 POLICIES**

- Support the development of a high quality educational system of schools and post-secondary institutions that increase the attractiveness of the PUC as a place to live and work.
- Work with the Department of Education to develop innovative shared-use facilities, particularly on City-owned school properties.



**4.7.3 GUIDELINES**

- Identify ways for the City and the general community to improve conditions within and near school and college campuses. For example, the City could take a lead role in enhancing street appearance, security, and traffic and pedestrian safety near campuses.
- The City Department of Parks and Recreation should coordinate with the DOE regarding the development and use of athletic facilities such as playgrounds, playfields and courts, swimming pools, and gymnasiums, where joint use of such facilities would maximize use and reduce duplication of function without compromising the schools' athletic programs.

**4.8 CIVIC AND PUBLIC SAFETY FACILITIES****4.8.1 EXISTING CONDITIONS, ISSUES, AND TRENDS**

The PUC is served by four satellite city halls located at Ala Moana Center, Downtown, Kapalama, and Pearlridge Center. They offer many basic services, including bus pass sales, bicycle registration, and driver's license renewals. The State Department of Accounting and General Services proposes to develop a site in Liliha as a one-stop regional service center to consolidate State agencies that offer social services and business assistance, collect fees and taxes, and issue licenses and registrations.

The Honolulu Police Department serves the PUC out of its Capitol District Headquarters and substations in Downtown-Chinatown, Waikiki, Kalihi, and Pearl City. The Honolulu Fire Department serves the PUC from 21 fire stations. It also maintains a training facility on military land near the airport that is to be relocated once a new site is identified and secured. Ambulance service, provided by the City's Emergency Medical Services Division, is currently delivered from each of the fire stations.

In general, existing facilities are adequate to serve expected future growth in the PUC.

**4.8.2 POLICIES**

- Provide adequate staffing and facilities to ensure effective and efficient delivery of basic governmental service and protection of public safety.

**4.8.3 GUIDELINES**

- As population increases, provide support for civil defense building shelters and improved technology, equipment and training for fire fighting, police protection and paramedical services.
- Establish new Satellite City Halls within neighborhood commercial complexes or community centers if there is an opportunity to do so with little or no capital expense or modest rent.



## CHAPTER 5: IMPLEMENTATION

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Implementation of the *Primary Urban Center Development Plan* will be a major challenge for City government, concerned State agencies, and the residents and businesses of Honolulu. In contrast to previous Development Plans that functioned primarily as regulatory guides and were prerequisites for the zoning of each parcel, this revised Plan is oriented towards implementation on a broader scale. To implement the vision for the future, it provides broad guidance for neighborhood planning, zoning matters, and actions relating to land use, public facilities and infrastructure. Many of the DP provisions reflect consultations that occurred throughout the planning process with government agencies and community representatives.

Many other city, county, and town jurisdictions on the U.S. mainland have instituted comprehensive planning programs that emphasize a proactive community-based planning and implementation process. These local governments seek to establish a strong link between planning policies and guidelines, and the specific organization, funding and actions needed to implement a variety of public and private projects and programs. This Chapter is intended to strengthen the linkage to implementation, so that the vision presented in this plan can be realized.

Implementation of the *Primary Urban Center Development Plan* will be accomplished by a variety of means, including:

- Initiating zoning map and development code amendments to achieve consistency with the policies and guidelines of the Development Plan;
- Guiding public investment in infrastructure through functional planning activities in support of the vision of the Development Plan;
- Recommending approval, approval with modifications, or denial of developments seeking zoning and other development approvals based on how well they support the vision for the PUC's development;
- Incorporating Development Plan priorities through the Public Infrastructure Map and the City's annual budget process;
- Evaluating progress in fulfilling the vision of the *Primary Urban Center Development Plan* every two years and presenting the results of the evaluation in the Biennial Report; and
- Conducting a review of the vision, policies, guidelines, and CIP priority investments of the *Primary Urban Center Development Plan* every five years and recommending revisions as necessary.

### 5.1 PUBLIC FACILITY INVESTMENT PRIORITIES

The vision for the PUC requires the cooperation of both public and private agencies in planning, financing, and improving infrastructure. The City must take an active role in planning infrastructure improvements, such as land acquisition and site improvements for proposed parks; provision of adequate public access to the shoreline and mountain areas; provision of pedestrian, bicycle, and other transportation options; and improvements to wastewater and stormwater management systems. Of particular importance is the need to achieve a balanced transportation system and upgrade the wastewater system in older, in-town Honolulu neighborhoods. These improvements are needed in order to accommodate new housing and other needed facilities.

### 5.2 DEVELOPMENT PRIORITIES

Projects to receive priority in the approval process are those that:

- Involve land acquisition and improvements for public projects which are consistent with the Development Plan vision, policies and guidelines; and



- Involve applications for zoning and other land use permits that are consistent with the Development Plan vision, policies, and guidelines.

### 5.3 SPECIAL AREA PLANS

Special Area Plan is a title given to a plan that covers a particular neighborhood or district. A Special Area Plan provides more detailed policies, principles, and guidelines than the Development Plan. The form and content of a Special Area Plan depends on what characteristics and issues need to be addressed in greater detail in planning and guiding development or use of the Special Area.

Special Area Plans can be used to guide land use development and infrastructure investment in areas throughout the PUC and, where they exist, shall be consulted when reviewing applications for zone changes and other applicable development approvals. Special Area Plans may address a Special District, special natural or cultural resource areas or issues, or the objectives and needs of a specific neighborhood, activity center, or corridor.

Special Area Plans provide a vehicle for the neighborhood planning discussed in Chapter 3. Because the PUC is so large and diverse in area, population, and activities, this Development Plan must necessarily be general in content. However, communities may develop Special Area Plans, which shall be reviewed and may be accepted by the City Council by resolution, with or without amendments as the Council deems appropriate, for the purpose of guidance in establishing specific policies and an implementation program for the affected area.

The Special Districts previously established within the PUC are generally consistent with the policies and guidelines of this Development Plan. They should be revised as necessary in keeping with the five key elements of the PUC vision and the policies and guidelines for each key element. Special Area Plans for specific neighborhoods will be essential in establishing action programs, capital improvements, and regulatory changes. The geographic boundaries and content of these plans will be determined by interested communities working in partnership with the City.

### 5.4 FUNCTIONAL PLANNING

Functional planning is the process through which various City agencies determine needs, assign priorities, phase projects, and propose project financing to implement the vision articulated in the Development Plan. This process may take a variety of forms, depending upon the missions of the various agencies involved, as well as upon requirements imposed from outside the City structure, such as federal requirements for wastewater management planning. Typically, functional planning occurs as a continual or iterative activity within each agency.

Through the functional planning process, City agencies responsible for development and maintenance of infrastructure and public facilities, and the provision of City services review existing functional planning documents and programs. As a result of these reviews, the agencies then update existing plans or prepare new long-range functional plans that address facilities and service system needs. Updates of functional planning documents are also conducted to assure that agency plans will serve to implement the Development Plan as well as to provide for coordination of plans and programs among the various agencies.

The number and types of functional planning documents will vary from agency to agency, as will the emphases and contents of those documents. A typical agency may develop a set of core documents such as:

- A resource-constrained long-range capital improvement program. A “resource-constrained” program is one that identifies the fiscal resources that can be reasonably expected to be available to finance the improvements.



- A long-range financing plan, with identification of necessary new revenue measures or opportunities.
- A development schedule with top priorities for areas designated for earliest development.
- Service and facility design standards, including level of service guidelines for determining adequacy.

Other documents may also be developed as part of an agency's functional planning activities, such as master plans for provision of services to a specific region of the island. In some cases, functional planning activities will be undertaken in cooperation with agencies outside the City structure, such as the transportation planning activities that are conducted in association with the Oahu Metropolitan Planning Organization (OMPO).

Functional planning is intended to be a proactive public involvement process that provides public access to information about infrastructure and public facility needs assessments, alternatives evaluations, and financing. Outreach activities should involve Neighborhood Boards, community organizations, landowners, and others who may be significantly affected by the public facilities and infrastructure projects or programs being developed to further implement the policies of the Development Plan.

The functional planning process should be characterized by opportunities for early and continuing involvement, timely public notice, public access to information used in the evaluation of priorities, and the opportunity to suggest alternatives and to express preferences. The functional planning process provides the technical background for the Capital Improvement Program and public policy proposals that are subject to review and approval by the City Council.

## **5.5 REVIEW OF ZONING AND OTHER DEVELOPMENT APPLICATIONS**

One way in which the vision of the *Primary Urban Center Development Plan* will guide land use will be through the review of applications for zone changes and other development approvals. Approval for all development projects should be based on the extent to which the project supports the policies, principles, and guidelines of the Development Plan.

Projects that do not involve significant zone changes will be reviewed by the Department of Planning and Permitting for consistency with the policies, principles, and guidelines of the *Primary Urban Center Development Plan* during the Zone Change Application process.

Projects involving significant zone changes will require an Environmental Assessment which must include a Project Master Plan. This is submitted to the department of planning and permitting for review prior to initiation of the first Zone Change Application. (See definitions of "significant zone change" and "project master plan" in Section 24-2.1 of the adopting ordinance.)

### **5.5.1 Adequate Facilities Requirement**

All projects requesting zone changes shall be reviewed to determine if adequate public facilities and infrastructure will be available to meet the needs created as a result of the development. Level of Service Guidelines to define adequate public facilities and infrastructure requirements will be established during the Capital Improvement Program.

In order to guide development and growth in an orderly manner as required by the City's *General Plan*, zoning and other development approvals for new developments should be approved only if the responsible City and State agencies indicate that adequate public facilities and utilities will be available at the time of occupancy or if conditions the functional agency indicates are necessary to assure adequacy are otherwise sufficiently addressed.



The Department of Planning and Permitting, as part of its report on the consistency of the project with the *Primary Urban Center Development Plan*'s vision, will review and summarize any individual agency's findings regarding public facilities and utilities adequacy which are raised as part of the environmental assessment/environmental impact statement (EA/EIS) process. The department of planning and permitting will address these findings and any additional agency comments submitted as part of the agency review of the zone change application, and recommend conditions that should be included in the Unilateral Agreement or Development Agreement to insure adequacy of facilities.

## **5.6 FIVE-YEAR DEVELOPMENT PLAN REVIEW**

The department of planning and permitting shall conduct a comprehensive review of the *Primary Urban Center Development Plan* and shall report its findings and recommended revisions to the Planning Commission and the City Council five years after adoption and every five years thereafter.

### **5.6.1 Urban Community Boundary**

The Urban Community Boundary (UCB) is intended to remain fixed through the year 2025 planning horizon. All future growth in the PUC should be primarily in-fill and redevelopment.

## **5.7 TRANSITION FROM THE CURRENT SYSTEM**

This section discusses the transition from the former Development Plan to this revised Development Plan, including its independence from Development Plan Common Provisions, its relationship to the *General Plan* guidelines, and the need for review and revision of development codes, standards, and regulations.

### **5.7.1 Development Plan Common Provisions and Existing Land Use Approvals**

This Development Plan will go into effect upon adoption by ordinance. At that time, the revised Development Plan will become a self-contained document, not reliant on the Development Plan Common Provisions that formerly applied to the *Primary Urban Center Development Plan* as well as all the other Development Plans.

Land use approvals granted under existing zoning, Unilateral Agreements, and approved Urban Design Plans will remain in force and guide entitlement decisions until any zoning action to further implement the vision and policies of the *Primary Urban Center Development Plan* is initiated. If an environmental assessment or environmental impact statement is accepted in the course of a Development Plan land use approval for a project, it should be acceptable to meet the requirement for an initial project EA/EIS when zone change applications are submitted for subsequent phases of the project unless the project scope and land uses are being significantly changed from that described in the initial EA/EIS.

### **5.7.2 Review and Revision of Development Codes**

Upon completion of the Development Plan Revision Program, current regulatory codes and standards should be reviewed and revised, as necessary, to maintain their consistency and effectiveness as standards to guide attainment of the objectives and policies envisioned for all Development Plan and *Sustainable Communities Plan* areas. When such reviews are conducted, the following regulatory codes and standards may warrant further review and revision to ensure achievement of the vision for the PUC region, as identified in this plan, as well as consistency with the *Primary Urban Center Development Plan*:

- **Land Use Ordinance** (Chapter 21, Revised Ordinances of Honolulu).



- ***Subdivision Rules and Regulations*** (Department of Planning and Permitting, pursuant to Chapter 22, Revised Ordinances of Honolulu).
- ***Building Code*** (Department of Planning and Permitting).
- ***Traffic Standard Manual*** (Department of Transportation Services, July 1976, as revised).
- ***State Highways Division Procedures Manual***, Vol. 8, Chapter 5, Section 4 (State Department of Transportation, Highways Division).
- ***Standard Details for Public Works Construction*** (Department of Planning and Permitting).
- ***Storm Drainage Standards*** (Department of Design and Construction, March 1986).
- ***Park Dedication Rules and Regulations*** (Department of Planning and Permitting, pursuant to Chapter 22, Article 7, Revised Ordinances of Honolulu).
- ***Environmental Services Standards*** (Department of Design and Construction Design Standards, Volumes I and II, and the 1990 Revised Ordinances of Honolulu, Chapter 14, Relating to Sewer Services).



## **Honolulu - Land Use**



## Appendix A: Maps

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The PUC DP includes six foldout maps:

- Significant Panoramic Views (**Map A.1**)
- Open Space Map (**Map A.2**)
- Land Use Key Map (**Map A.3**)
- Land Use Maps for PUC-West, PUC-Central and PUC-East (**Maps A.4, A.5, A.6**)

These maps illustrate the long-range vision of the future of the plan area and the major land use and open space policies that are articulated in the plan. In using these maps, the reader should keep in mind that:

- (1) These maps are general and conceptual.
- (2) The maps are illustrative of the plan's policy statements, presented in the text of this report.

The policy and guideline statements are considered to be the most important elements of the plan. The maps are considered illustrations of the policies.

The maps present the Urban Community Boundary, generalized views, open space designations, and general land use designations. The land use maps are not parcel-specific, and illustrate generalized categories or groups of land uses within the region.

Because they are not parcel-specific, the lines depicted by these boundaries do not indicate precise demarcations. The extent of permissible or appropriate uses within land use categories should be evaluated in concert with relevant sections of the plan's text and specific site characteristics. The plan is intended to guide the zoning district regulations contained in the *Land Use Ordinance* and the mapping of zoning districts. Recognizing that the maps may be more accessible and more interesting than the written policies, the following section presents a summary description of the organizing boundaries and land use designations common to all the maps, and a brief explanation of the contents of each of the maps followed by a glossary of the land use designations.

### URBAN COMMUNITY BOUNDARY

The Urban Community Boundary defines and contains the intended extent of developed or "built-up" areas of urban and urban fringe communities. Its purpose is to define the land area that is appropriate for urban development while protecting lands outside this boundary for agriculture or open space values. The Urban Community Boundary is intended to remain fixed through the year 2025 planning horizon. Areas within this boundary are generally characterized by extensive tracts of residential, commercial, industrial, or mixed-use development clearly distinguishable from undeveloped, agricultural or more "natural" portions of the region.

### PRESERVATION BOUNDARY

For the purposes of this region, the Preservation Boundary can be considered the reverse side of the Urban Community Boundary. The primary purpose of the Preservation Boundary is to protect lands which are not valued primarily for agriculture, but which form an important part of the region's open space fabric for their natural, cultural, unique agricultural, or scenic resource values. The boundary generally circumscribes undeveloped lands designated "preservation" on the Open Space and Land Use maps. Preservation Boundaries that are located within the PUC's Urban Community Boundary are intended to remain fixed.



**URBAN AREAS**

Urban lands include those lands that have been developed or are planned for development for residential, commercial, and industrial uses.

**PRESERVATION AREAS**

Preservation areas include lands valued primarily for their natural, cultural, or scenic resource values. These lands generally include important wildlife habitat, cultural sites, significant landforms, views, or hazard areas, such as:

- Lands necessary for protecting watersheds, water resources, and water supplies.
- Lands necessary for the conservation, preservation, and enhancement of sites with scenic, historic, archaeological, or ecologic significance.
- Lands necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish, and wildlife, for forestry, and other related activities to these uses.
- All offshore and outlying islands of Oahu unless otherwise classified.
- Lands with topography, soils, climate, or other related environmental factors that may not be normally adaptable or presently needed for urban, rural, or agricultural use.
- Lands with general slopes of 20 percent or more that provide for open space amenities and/or scenic values.
- Lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the State or Federal government, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the lands' susceptibility to landslides or both inundation by tsunami and flooding.
- Lands used for national, state, or city parks.
- Lands suitable for growing of commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when said facilities are compatible with the natural physical environment.

**VIEWS MAP**

The Significant Panoramic Views Map (**Map A.1**) is intended to illustrate the region's major views and indicate major view features, such as mountain preservation areas and the three volcanic craters along the coastal plain – Aliamanu, Punchbowl (Puowaina), and Diamond Head (Leahi).

**OPEN SPACE MAP**

The Open Space Map (**Map A.2**) is intended to illustrate the region's major open space patterns and resources as outlined in **Section 3.1**. It highlights major open space elements and resources, including preservation and agricultural lands, major parks and recreational facilities, harbors and waterfront promenades, stream greenbelts, and areas such as major institutional campuses, golf courses, and cemeteries that contribute to open space but are not used by the general public.



## LAND USE MAPS

The Land Use Key Map (**Map A.3**) shows how the Land Use Map is divided into three sections – PUC-West, PUC-Central and PUC-East (**Maps A.4, A.5, A.6**). The three colored Land Use Maps illustrate the desired long-range land use pattern for the entire PUC. (Note that the maps overlap in order to provide context on the edges of each area.)

While the land use designations displayed on the map are intended to denote the predominant land use pattern, minor occurrences of other uses may also be present to the extent that the use is compatible with the predominant land use, and the character and intensity of the intended land use designation is maintained. For instance, areas designated for “lower-density residential” may also contain pockets of “higher-density residential/mixed use” areas where higher-density housing areas are integrated with retail and commercial services and with recreation and community facilities serving the surrounding neighborhood.

The land use maps illustrate the following land use designations within the Urban Community Boundary:

### Lower-Density Residential

These uses are depicted as a single tone yellow color. Lower-Density Residential generally refers to single-family detached residences, attached houses, and low-density, low-rise multifamily residences that maintain a density between five and 12 dwelling units per acre. Areas zoned for apartment use within the lower-density residential designation may have higher densities and land uses consistent with that zoning classification.

Commercial services are an integral part of livable communities such as these. Therefore, the yellow color which indicates lower density residential uses may also accept clusters of community and neighborhood-level commercial establishments where appropriate. In some cases, particularly where such clusters signify higher levels of development or neighborhood use, such clusters, may be indicated by a red dot.

### Medium and Higher-Density Residential/Mixed Use

Areas identified for medium and higher-density residential/mixed use designations are shown as light brown on the maps. This designation refers to a broad range of medium and higher-density residential uses that vary in density from 13 to 140 units per acre. Medium density residential may range from 13 to 90 units per acre, while high density residential may range from 90 to 140 units per acre. Building types are intended to include low-rise multifamily residences such as townhouses or low-density apartments to mid-rise and high-rise multifamily buildings. The integration or close location of residential buildings with office and retail services or recreation and community facilities should be encouraged as mixed-use is an essential component of this designation.

### Community/Neighborhood Commercial

These centers generally consist of clusters of commercial establishments intended for neighborhood service within lower-density residential neighborhoods. While they may not be mapped, certain more intensely developed clusters may be indicated by red dots. Uses typically include service stations, grocery and sundry stores, and other services and shops catering to common household- or neighborhood-level convenience items. While they vary greatly in total size and number of business establishments, a community/neighborhood commercial area is typically comprised of less than 200,000 square feet of commercial floor area.



**District Commercial**

District commercial areas, which are shaded in red on the maps, refer to a wide variety of commercial uses and related activities intended to serve district, regional or islandwide populations. Uses typically include major office buildings, shopping centers, professional and business services, municipal services, and commercial activities located along major streets. Mixed uses, including appropriately integrated medium or higher-density residential facilities, and higher densities are encouraged in these areas.

**Industrial**

Areas identified for industrial use designation are shaded in purple. It includes the major transportation facilities, and facilities for light- and service-related industrial uses associated with repair, processing, construction, manufacturing, transportation, wholesaling, distribution, storage, or similar economic activities, and supporting facilities that directly enhance their viability. Industrial areas also include a range of compatible commercial activities, except where otherwise specified within the text of the Development Plan. Areas intended primarily for more intensive, noxious industrial uses are also specified in the text of the plan.

**Resort**

Areas designated for resort use are depicted in pink. This designation consists primarily of full-service or specialty hotels, timeshares, and apartments to support the visitor industry, as well as accessory and supporting commercial uses such as retail, food and entertainment establishments intended to enhance the viability of the principal use. Mixed-use concept is an essential component of this designation, and the integration of visitor accommodations in close proximity to related support services should be encouraged.

**Institutional**

The institutional designation includes facilities for public use or benefit, including schools, churches, hospitals, group living establishments, utilities and infrastructure production or support facilities, civic, public, and social services facilities, and government facilities. These areas are depicted as blue shapes.

**Major Parks and Open Space**

Parks and Open Space features are depicted by a dark green color. This designation refers to larger land areas and recreational facilities that contribute to the region's open space network, including regional and district parks, botanical gardens, zoological parks, golf courses and cemeteries. Community, neighborhood, and miniparks are part of the open space system, but are too small to display on the map.

**Military**

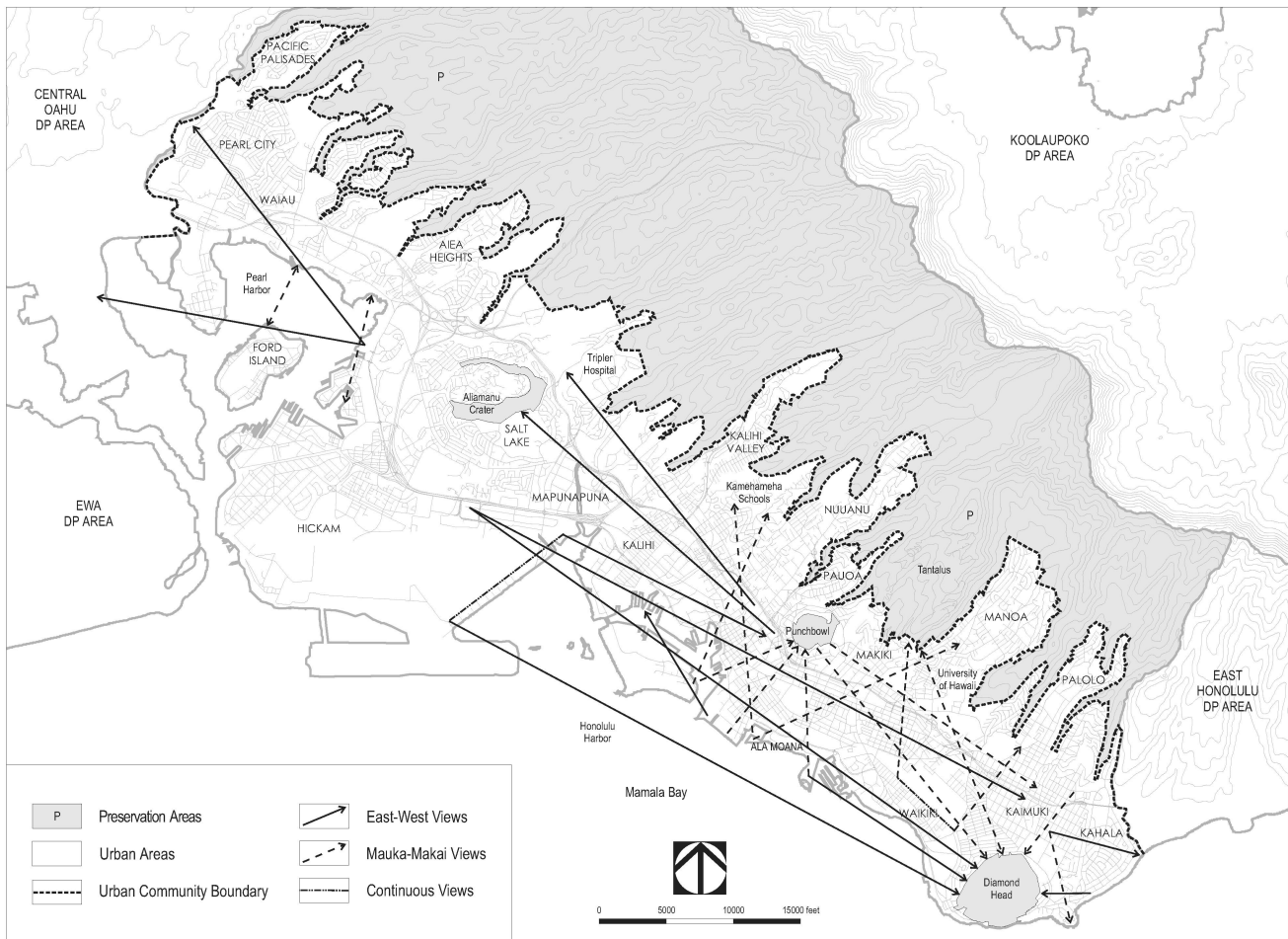
These uses, which are depicted on the maps by a gray color, include lands for military and military support purposes.

**Pedestrian Network**

A regional system of pedestrian facilities intended to enhance pedestrian mobility within and between neighborhoods.

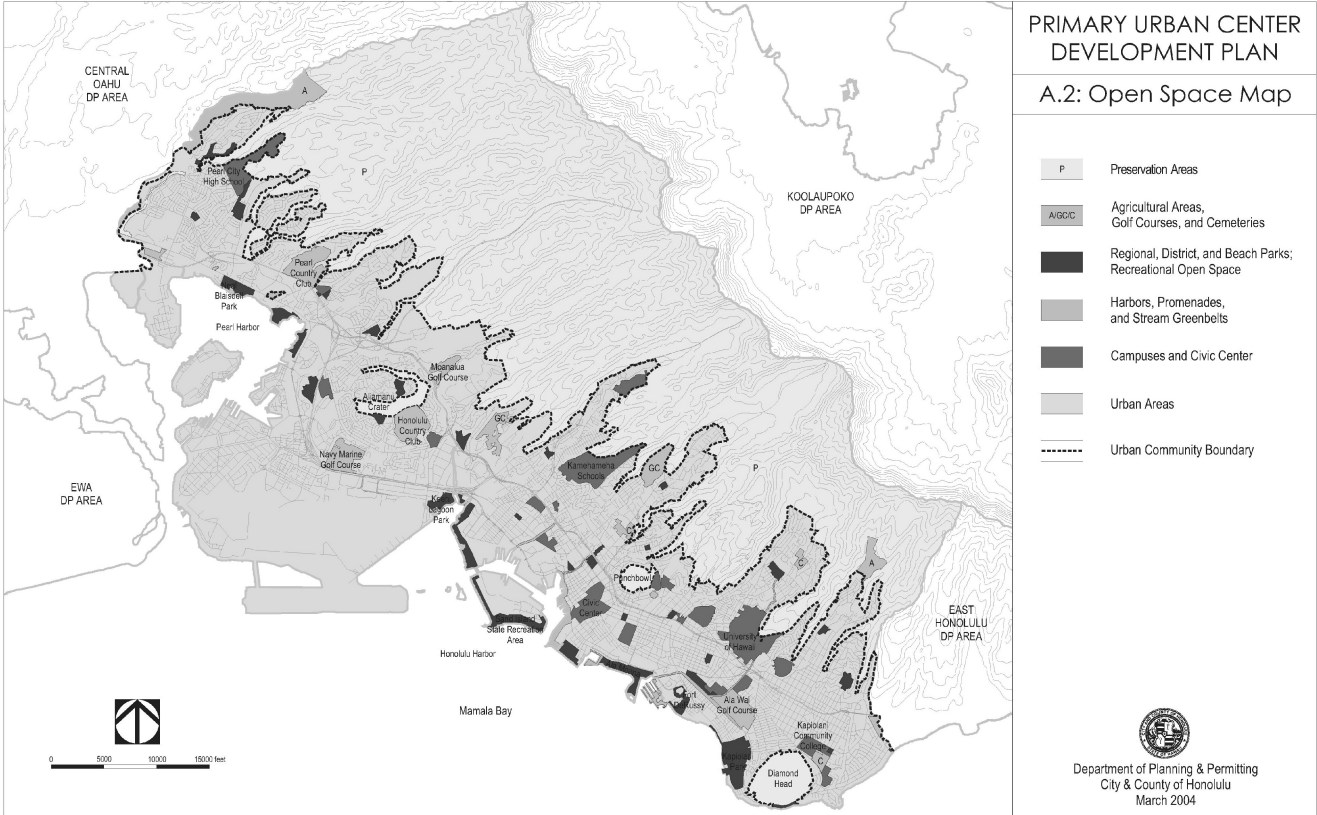


MAP A.1: SIGNIFICANT PANORAMIC VIEWS



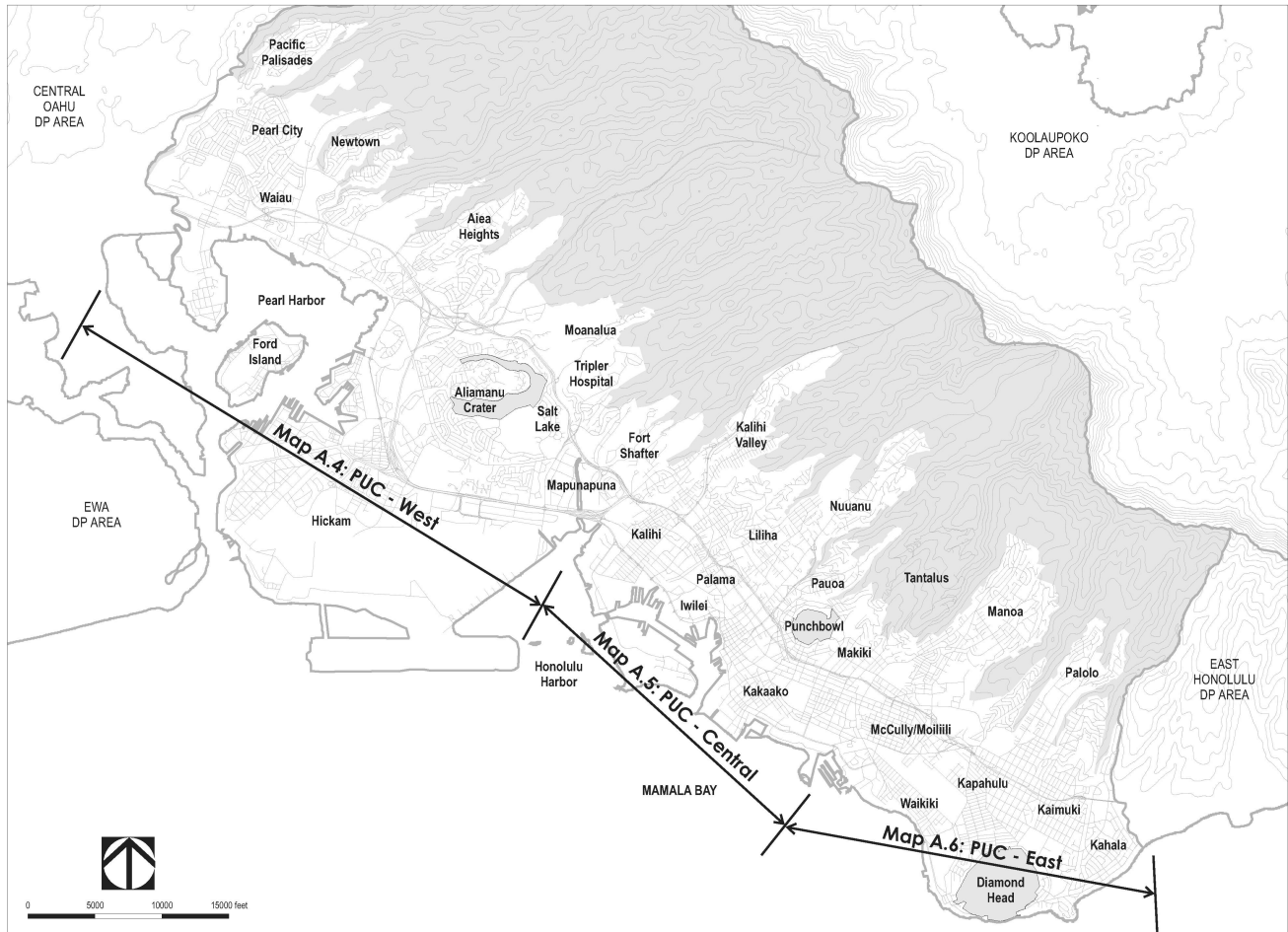


MAP A.2: OPEN SPACE MAP



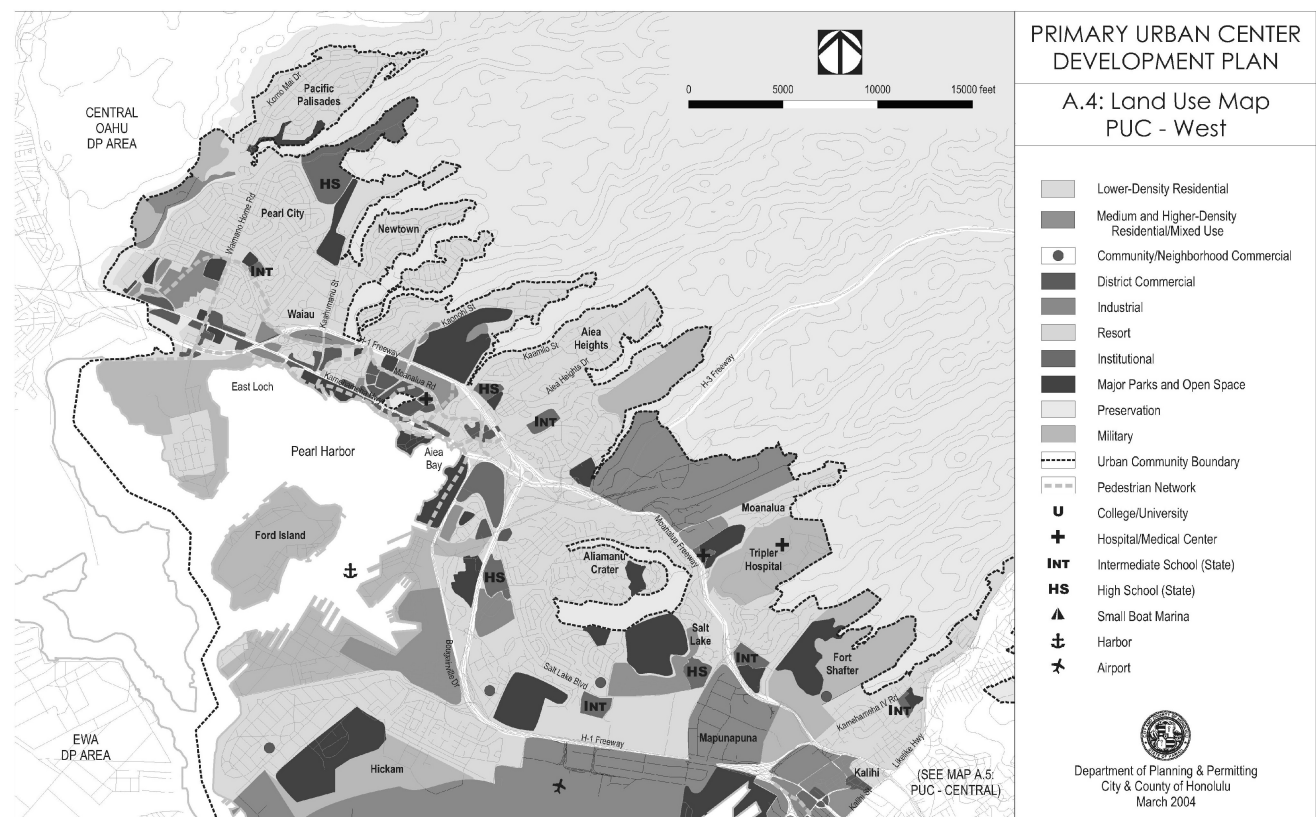


**MAP A.3: LAND USE KEY MAP**



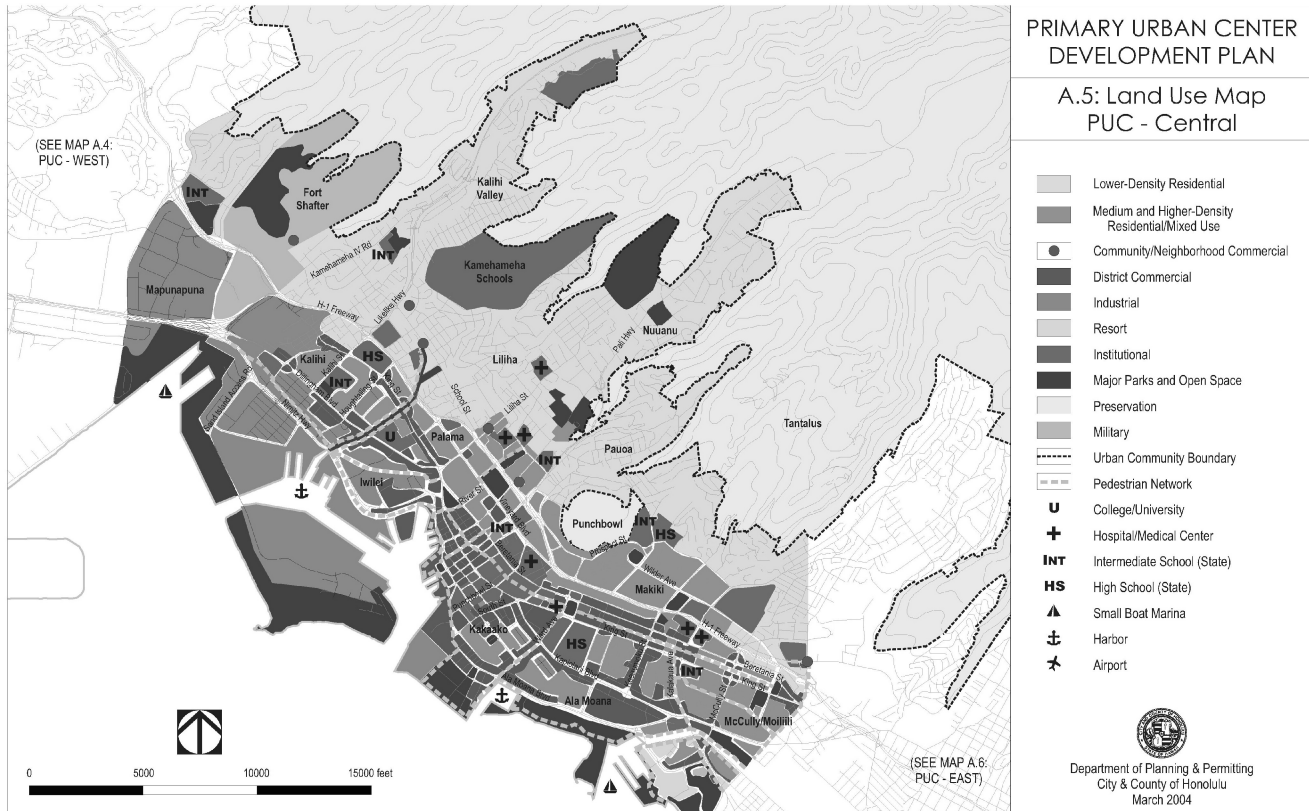


MAP A.4: LAND USE MAP PUC - WEST



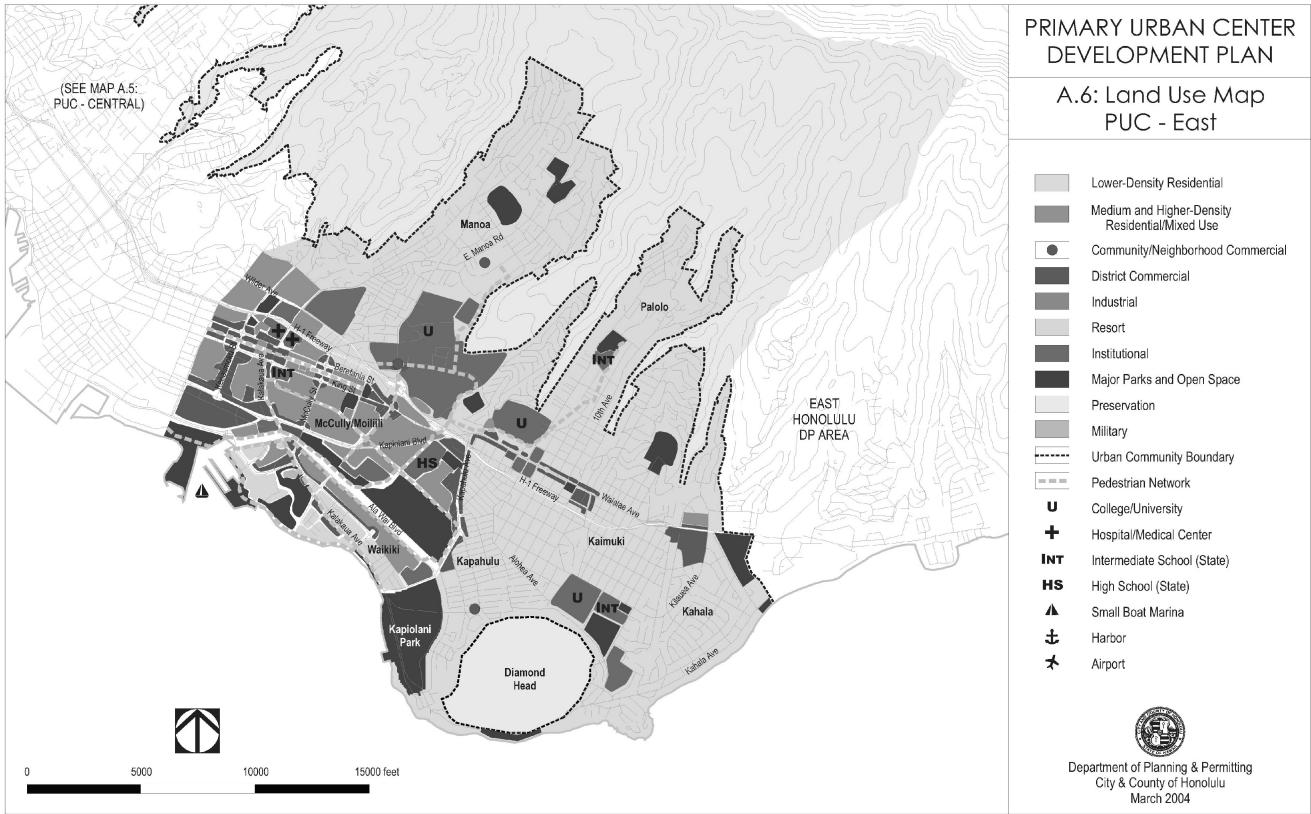


MAP A.5: LAND USE MAP PUC - CENTRAL





MAP A.6: LAND USE MAP PUC - EAST





## Appendix B: Implementation Strategies

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This appendix is like a tool box. It sets forth some potential strategies, or options, that can be studied further, used, adopted, or otherwise modified when considering how to implement the policies and guidelines of **Chapter 3** of the *Primary Urban Center Development Plan* or when considering what kinds of specific implementation-oriented planning instruments to use in developing neighborhood plans. They are generally more specific and detailed than the guidelines. In some cases, more study may be needed to establish the efficacy and understand the possible disadvantages of a particular option. Some options may be best suited to more detailed community- or neighborhood-level plans. This appendix is intended as a resource for the making of neighborhood plans and for revisions to the *Land Use Ordinance (LUO)*. The implementation strategies are organized according to the five major headings of **Chapter 3**. Strategies are listed for **Sections 3.1, 3.2, 3.3, and 3.5**. There are none listed for **Section 3.4**, which relates to visitor, office, military, and industrial centers.

### 3.1 POTENTIAL IMPLEMENTATION STRATEGIES FOR PROTECTION OF NATURAL, CULTURAL, SCENIC RESOURCES

Following are potential implementation strategies relating to natural, cultural, and scenic resources, organized by subject area.

#### Historic Sites and Districts

- Adopt a property tax abatement program that bases assessments of land value for eligible historic sites on existing use rather than highest and best use.
- Develop flexible development standards for historic sites and landmarks.
- Allow adaptive reuse of historic dwellings and sites compatible in type and scale with the residential neighborhood.
- Promote private reinvestment in historic districts by making public investments that upgrade services and improve security and enhance the appearance of the area, consistent with the historic design theme of the district.

#### Native Hawaiian Cultural and Archaeological Site

- Require preservation in-situ where recommended by the State Historic Preservation Officer.
- Determine the appropriate preservation methods on a site-by-site basis in consultation with the State Historic Preservation Officer.
- Determine appropriate delineation of site boundaries and setbacks and restrictions for adjacent uses on a site-by-site basis in consultation with the State Historic Preservation Officer, taking into consideration sight lines that are significant to the original purpose and value of the site.

#### Stream Greenways and Drainage

- Where possible, retain and restore natural vegetation along stream channels.
- Use athletic fields and other natural areas as stormwater retention basins.
- Where modification of a stream channel is necessary for flood control or to stabilize the channel, use rip-rap armoring and vegetation on the upper banks in lieu of a concrete box design.



**Parks and Recreational Open Spaces**

- Locate areas designed for sporting events that attract high numbers of people near major collector streets and transit stops.
- Avoid the placement of lighted playfields and outdoor courts near apartments or other residential areas where excessive glare and noise would cause disturbances during the evening and night.
- Promote the joint development, use and maintenance of facilities under the jurisdiction of the City department of parks and recreation, the State department of education and private, nonprofit recreational organizations.
- Maintain a significant amount of open space and area dedicated to passive recreation on all park lands, especially the regional and islandwide parks.
- Minimize the visibility of large recreation buildings or structures, lighting, parking lots, perimeter fencing, and other utilitarian elements through plantings or other appropriate visual screening adjacent to residential areas and major streets.

**3.2 POTENTIAL IMPLEMENTATION STRATEGIES FOR CULTIVATING LIVABLE NEIGHBORHOODS**

The following implementation strategies relate to planning for neighborhoods and specific areas, commercial corridors, and the areas around transit stations. They are organized into categories for “Tools for Livable Communities,” with strategies specific to Shopping and Retail Business Districts, In-Town Residential Neighborhoods and *Mauka* Residential Neighborhoods.

**Tools for Livable Communities*****Maintain existing zoning where appropriate***

- Apply existing zoning where warranted by neighborhood character or community objectives.
- Strengthen existing zoning provisions where needed to clarify or implement zoning intent.

**Improve the pedestrian network**

- Retain public roads and right-of-ways.
- Avoid superblock developments.
- Create midblock pathways.

**Allow “build-to lines” rather than yard setbacks**

- Along key “main street” corridors.
- Fronting or bordering parks.
- At “neighborhood corner” commercial areas.
- Exceptions include civic and educational institutions.



**Create buildings that turn their “eyes on the street”:**

- No blank walls, parking garage facades or lots along key streets.
- Place usable entry doors and windows at street level.

**Require usable parks rather than “buffers”**

- Create usable open space – plazas, parks, and courtyards (eliminate unusable building setbacks and “buffers”).
- Increase safety by using adjacent buildings to help supervise parks.
- Revise Park Dedication rules for in-town multifamily projects to favor usable public open spaces.

**Review and evaluate existing parking regulations and requirements**

- Consider creating “Park-Once Districts” where appropriate.
- Consider counting all parking in a given district.
- Evaluate parking requirements based on actual use and needs within 1/4 mile of transit stops.

**Develop “healthy streetscape” standards**

- Provide wider sidewalks on key streets.
- Plant shade trees in planter strips between curbs and sidewalks.
- Develop safer pedestrian crossings using curb extensions and median crossings.
- Incorporate bike lanes.

**Foster mixed-use zoning and apply where appropriate**

- Promote residential apartments in commercial districts.
- Create Workplace Zoning Districts where a combination of “clean” lifestyle support uses are allowed subject to performance standards for compatibility.

**SHOPPING AND RETAIL BUSINESS DISTRICTS****IN-TOWN COMMERCIAL DISTRICTS**

- Revitalize older commercial streets by providing municipal parking lots or additional on-street parking instead of requiring parking on each lot, and by making visual improvements such as street trees, special signage, and fixtures.
- Locate and design municipal parking to be convenient for business customers and clients. Parking lots should be no farther than a five-minute walking distance from any business establishment, which may mean several small lots at dispersed points along a commercial street rather than a single, large lot.
- Require that buildings on specified streets build to the sidewalk.
- Support older commercial centers by providing public parking, possibly using parking improvement districts and by reducing or eliminating parking requirements for small, older commercial buildings in targeted neighborhood business districts.



- Preserve street-wall building forms along older commercial streets by establishing “build-to” lines and requiring display windows and pedestrian entries along street frontages for new construction. Allow canopies to project into the sidewalk area and plant street trees in the sidewalk area instead of landscaped setbacks from the front property line.

#### COMMUNITY/NEIGHBORHOOD COMMERCIAL AREAS

- Require parking lots, service areas, and loading zones to be screened from view of the street and adjacent residential lots.
- Require new commercial buildings located directly adjacent to residential dwellings to achieve effective transition in scale, if necessary, and to utilize building and roof treatments that are sympathetic to residential character.
- Allow only low-level lighting for parking and service areas.
- Reduce or waive off-street parking requirements for neighborhood stores.

#### SHOPPING CENTERS

- Develop performance standards for shopping centers requiring: (1) clearly-defined pedestrian walkways between the sidewalk and building entrances; (2) placement of stores along a portion of the street frontage; (3) convenient access to public transit; and (4) mitigation of vehicular traffic impacts. Standards could be implemented by requiring a conditional use or similar permit for shopping centers over a certain size.

#### **In-Town Residential Neighborhoods**

- Redevelop minor streets within in-town, higher-density residential neighborhoods to create open space “green streets.” A green street may have limited one-way vehicular traffic and should employ traffic calming design. Reclaimed portions of the right-of-way could accommodate wider sidewalks, trees and plantings, and seating areas. **Figure A** is one example of how a green street might be designed.

#### ***Mauka Residential Neighborhoods***

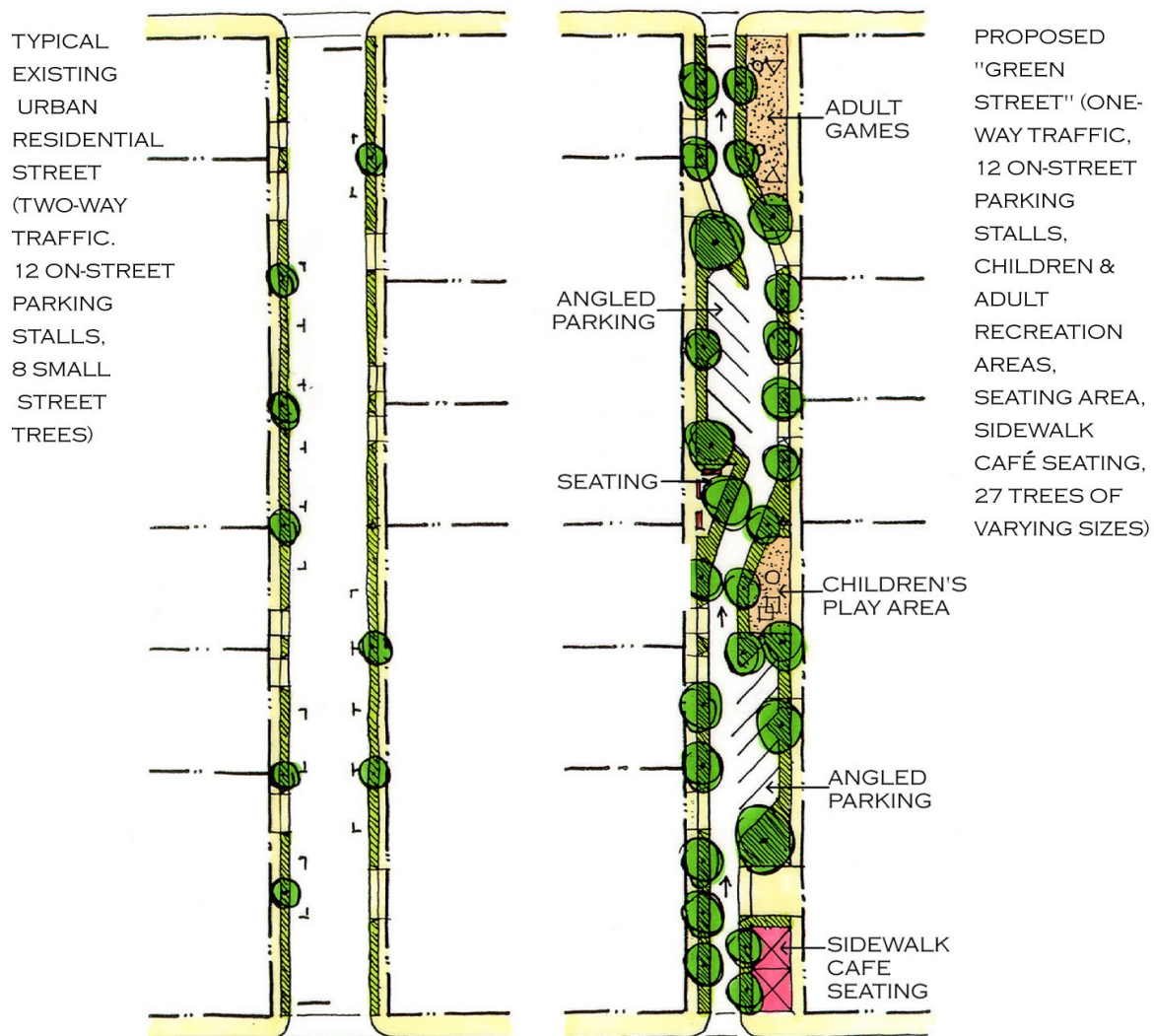
##### ***Residential Street Character***

- Adopt revised standards for streets and front yards that maintain or enhance the visual openness and landscaped quality of streets and front yards and emphasize pedestrian and bicycle safety and convenience.
- Widen the automobile travelway only where clearly needed for public health and safety.
- Implement traffic calming measures in conjunction with community-based efforts to improve neighborhood quality of life.



**Commercial Uses and Parking**

- Encourage the development and continuation of commercial uses that have a pedestrian orientation and a predominantly neighborhood service area.
- Alleviate traffic and parking impacts of commercial and institutional uses.

**Figure A: Urban Green Street**



### 3.3 POTENTIAL IMPLEMENTATION STRATEGIES FOR DEVELOPING IN-TOWN HOUSING CHOICES

Policies in **Section 3.3** of the plan call for developing in-town housing opportunities that are affordable and that contribute to livable neighborhoods. Zoning and building regulations are among the key factors affecting the design and cost of housing. Below are some potential options for revising zoning and building regulations.

These options could be used to thoroughly revise apartment development standards citywide; or they could be applied to specific neighborhoods or districts of the PUC. At a minimum, the *LUO* development standards for Apartment districts should be thoroughly reviewed in light of current best practices. Neighborhood and special area plans should also consider alternative zoning and building standards for apartment housing.

#### *Promote people-scaled, pedestrian-friendly multifamily housing*

- Allow buildings to cover a larger portion of the lot. Because current (2001) *LUO* standards limit building area to 40 percent on larger lots, tower type of building design is rewarded. If, instead, greater lot coverage is allowed, then building heights can be reduced. Buildings that have similar, low heights bring residents closer to the ground, relate better to adjoining buildings, and have a scale more in keeping with the streets and street trees.
- Reduce or eliminate required front and side yard setbacks. Front yards provide little usable open space and remove buildings from the street and from easy access by pedestrians. Eliminating the front yard provides opportunities for ground-floor storefronts, enlivening the street. Side yards often create “tunnels” of wasted space between tall buildings. Allowing walls to abut at side property lines eliminates this wasted space, allows more efficient use of the lot, and creates a “street wall” along the sidewalk. Establishing a required “build-to” line is often used to create a street wall.
- Require a pedestrian entrance from the sidewalk. An entry from the sidewalk encourages residents to do errands by walking and encourages interaction among neighbors. Along with ground-floor storefronts, pedestrian entries contribute to activity and safety along the street.

#### *Reduce the cost of apartment dwellings*

- Allow additional floor area for multifamily housing. Existing floor-to-land-area ratios (FAR) are relatively low. For example, it is possible to build 1.0 FAR in a residential district, but the A-1 Apartment District allows only 0.9 FAR. Some very successful apartment projects have been built at 3.5 FAR under BMX-3 zoning. Increasing the FAR has the effect of reducing the per-unit cost of land and infrastructure.
- Evaluate minimum parking requirements. Since the typical cost for a multilevel parking structure averages \$25,000 per stall, reducing the number of required spaces where appropriate could make apartment housing less costly.
- Count parking as floor area and increase FAR commensurately. Although aboveground parking structures contribute substantially to building mass, parking is not counted as floor area under current *LUO* regulations. (Parking structures can add as much as 3.0 FAR in building mass.) Under this flexible, market-based option, the developer would choose how much FAR to use for apartments and how much to use for parking stalls.
- Change building regulations to encourage less costly types of construction while maintaining existing health and safety standards.



***Improve the feasibility of building on small lots***

- Eliminate disincentives for building on small lots. Current *LUO* regulations have a sliding scale that reduces the maximum FAR for lots of less than 40,000 square feet. Eliminating or modifying this disincentive, and eliminating or reducing development standards for setbacks and site coverage may improve development feasibility for smaller lots.

***Encourage rehabilitation of older apartment housing***

- Develop separate building code provisions for rehabilitation of older apartment buildings, while maintaining health and safety standards. A more flexible code would encourage reinvestment and maintenance of low-rent housing.

***Augment schools and services to serve higher-density residential areas***

- Establish after-hours use of school fields and recreational facilities for neighborhood residents. Residents should contribute to care and maintenance of the facilities. The school campus should be integrated into the neighborhood and should have multiple points of pedestrian entry.

***Expand the supply of affordable housing***

- Expand the inventory of affordable housing units as needed by the community.

**3.4 POTENTIAL IMPLEMENTATION STRATEGIES FOR DEVELOPING A BALANCED TRANSPORTATION SYSTEM**

Policies in **Section 3.5** of the Development Plan call for developing a balanced transportation system that will provide mobility and improve the quality of life in the PUC without major roadway expansions. Below are some potential options that could be used to carry out specific policies and guidelines.

***Coordinate land use policies and regulations with transit development***

- To promote the development of higher-density, mixed-use (i.e., residential-commercial) projects within the rapid transit corridor, provide incentives in the zoning code, such as floor area bonuses, use allocation ratios, and shared use of parking and loading.
- To promote pedestrian activity and facilitate transit ridership, establish special land use, design, and development standards for frontage properties along transit-oriented streets, with particular attention to the areas around transit centers and stops. Development standards may include reduced off-street parking; pedestrian entries close to the sidewalk, facade treatments that provide interest and amenities for pedestrians, and uses at ground level that generate pedestrian traffic.

***Support transit and manage transportation demand***

- Develop strategically located public parking facilities to support transit ridership.
- To promote transit ridership and increase housing affordability, reduce off-street parking requirements in the transit corridor and consider establishing maximum parking ratios rather than minimum ratios in selected areas.



- Provide incentives for developers and employers to prepare and implement trip reduction plans. Density bonuses may be appropriate for new development projects that demonstrate reductions in the number of external trips through provision of mixed uses and transit-oriented design.
- Encourage Downtown employers to implement work behavior changes such as telecommuting, flexible hours, and four-day workweeks.

***Improve roadway planning and design***

- Classify the major traffic streets, transit streets, pedestrian routes, bikeways, truck routes, and streets that serve multiple functions. Develop design and traffic operation guidelines for each street type, including appropriate land use and design treatment for frontage properties.
- Develop guidelines and initiatives to retrofit those streets that have a distinctive identity or whose identity has been degraded but could be restored. Examples of streets with a strong identity include Kapahulu Avenue, Waialae Avenue, Kahala Avenue, Bishop Street, and Oahu Avenue.
- Redefine the primary purpose of street setback lines and right-of-way acquisition to widen sidewalks, provide landscaping, and develop transit facilities. Priority should be given to major streets within the rapid transit corridor that are fronted by properties with significant development potential. Examples are Kalakaua Avenue between King Street and Ala Wai Bridge; Keeaumoku Street between Kinau Street and Kapiolani Boulevard; and Pensacola Street between King Street and Kapiolani Boulevard.
- Identify neighborhoods experiencing “shortcutting” to determine where to implement traffic calming and enforcement measures to minimize the impact.

***Improve bicycling facilities***

- Implement other policies and programs recommended in the *Honolulu Bicycle Master Plan*, giving priority to the following: (1) amending the *Land Use Ordinance* to require minimum short- and long-term bicycle parking by land use type; (2) providing incentives for developers to provide secure bicycle storage facilities and showers; and (3) undertaking educational, promotional and enforcement programs to institutionalize the concepts of bicycle-friendliness.



## APPENDIX C: GLOSSARY OF TERMS

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B&B	Bed and Breakfast Establishment
BRT	Bus Rapid Transit
BWS	Board of Water Supply
CIP	Capital Improvement Program
CVT	Community Vision Team
CWRM	State Commission on Water Resource Management
DOE	State Department of Education
DOT	State Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAR	Floor Area Ratio
HCDA	Hawaii Community Development Authority
HECO	Hawaiian Electric Company
HIA	Honolulu International Airport
LUO	Land Use Ordinance
<i>Mauka</i>	<i>towards the mountain; upland or inland</i>
<i>Makai</i>	<i>towards the sea</i>
<i>Ohana unit</i>	<i>an attached home of limited size on a lot where the underlying zoning normally allows only one house that must be occupied by relatives of the family living in the main house</i>
OMPO	Oahu Metropolitan Planning Organization
OR&L	Oahu Railway and Land Company
PCS	Personal Communications Systems
PUC	Primary Urban Center
PUC DP	Primary Urban Center Development Plan
RF	Radio Frequency
TDM	Transportation Demand Management
TOP 2025	Transportation for Oahu Plan 2025
TVU	Transient Vacation Unit

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UH	University of Hawaii
USS	United States Ship
WMA	Water Management Areas



## ARTICLE 3: EWA

### Sections

- 24-3.1 Definitions
- 24-3.2 Applicability and intent
- 24-3.3 Adoption of the Ewa development plan
- 24-3.4 Existing zoning and subdivision ordinances, approvals, and applications
- 24-3.5 Consistency
- 24-3.6 Review of development and other applications
- 24-3.7 Zone change applications
- 24-3.8 Annual capital improvement program review
- 24-3.9 Five-year review
- 24-3.10 Authority
- 24-3.11 Severability
- 24-3.12 Conflicting provisions

### § 24-3.1 Definitions.

For the purposes of this article, the following definitions apply unless the context clearly indicates or requires a different meaning.

***Charter.*** The charter of the City and County of Honolulu 1973, as amended.

***City.*** The City and County of Honolulu.

***City Council* or *Council.*** The city council of the City and County of Honolulu.

***County.*** The City and County of Honolulu.

***Department* or *Department of Planning and Permitting.*** The department of planning and permitting of the City and County of Honolulu.

***Development.*** Any public improvement project, or any public or private project requiring a zoning map amendment.

***Development Plan* or *Sustainable Communities Plan.*** A plan document for a given geographic area which consists of conceptual schemes for implementing and accomplishing the development objectives and policies of the general plan for the several parts of the City and County of Honolulu.

***Director.*** The director of planning and permitting.



***Environmental Assessment* or *EA*.** A written evaluation prepared in compliance with the environmental council’s procedural rules implementing HRS Chapter 343 to determine whether an action may have a significant environmental effect.

***Environmental Impact Statement* or *EIS*.** An informational document prepared in compliance with the environmental council’s procedural rules implementing HRS Chapter 343; and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic and social welfare of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

***Ewa Development Plan.*** The Ewa Development Plan attached hereto as Exhibit A and made a part hereof.

***Finding of No Significant Impact* or *FONSI*.** A determination based on an environmental assessment that the subject action will not have a significant effect and, therefore, will not require the preparation of an environmental impact statement.

***Functional Plan.*** The public facility and infrastructure plans prepared by public agencies to further implement the vision, policies, and guidelines set forth in the Ewa Development Plan.

***General Plan.*** The general plan of the City and County of Honolulu as defined by Charter § 6-1508.

***Hawaii Revised Statutes* or *HRS*.** Hawaii Revised Statutes, as amended.

***Planning Commission.*** The planning commission of the City and County of Honolulu.

***Project Master Plan.*** A conceptual plan that covers all phases of a development project. The “project master plan” also describes how the project conforms to the vision for Ewa, and the relevant policies and guidelines for the site, the surrounding lands, and the region.

***Revised Ordinances of Honolulu* or *ROH*.** Revised Ordinances of Honolulu, as amended.

***Significant Zone Change.*** A zone change which involves at least one of the following:

- (1) Changes in zoning of 25 or more acres of land to any zoning district or combination of zoning districts, excluding preservation or agricultural zoning districts;
- (2) Any change in zoning of more than 10 acres to a residential or country zoning district;
- (3) Any change in zoning of more than five acres to an apartment, resort, commercial, industrial, or mixed use zoning district; or
- (4) Any development which would have a major social, environmental, or policy impact, or major cumulative impacts due to a series of applications in the same area.

***Special Area.*** A designated area within the Ewa Development Plan area that requires more detailed planning efforts beyond what is contained in the Ewa Development Plan.

***Special Area Plan.*** A plan for a special area.



***Unilateral Agreement.*** A conditional zoning agreement made pursuant to § 21-2.80 or any predecessor provision that imposes conditions on a landowner or developer's use of the property at the time of the enactment of an ordinance for a zoning change.

***Vision.*** The future outlook for the Ewa region extending out to the year 2035 and beyond that entails creation of a community growth boundary and an open space network, development of the secondary urban center with its core at Kapolei, building of master planned communities with pedestrian and transit orientation, protection of historic, community and natural resources, and provision of adequate infrastructure and community facilities to meet Ewa's existing and future needs.

(1990 Code, Ch. 24, Art. 3, § 24-3.1) (Ord. 13-26)

### **§ 24-3.2 Applicability and intent.**

- (a) The Ewa Development Plan area encompasses the coral plain which stretches from the northeastern end of Kunia Road down to Waipahu and Pearl Harbor, and around the southwestern corner of Oahu along the shoreline up to Nanakuli where the coral plain meets the moderately steep slopes of the southerly end of the Waianae Mountain range, which form Ewa's mauka sector.
- (b) It is the intent of the Ewa Development Plan to provide a guide for orderly and coordinated public and private sector development in a manner that is consistent with applicable general plan provisions, including the designation of Ewa as the secondary urban center for Oahu and the Ewa urban fringe areas as one of the principal areas for residential development.
- (c) The provisions of this article and the Ewa Development Plan are not regulatory. Rather, they are established with the explicit intent of providing a coherent vision to guide all new public and private sector development within Ewa. This article shall guide development for Ewa, public investment in infrastructure, zoning and other regulatory procedures, and the preparation of the city's annual capital improvement program budget.

(1990 Code, Ch. 24, Art. 3, § 24-3.2) (Added by Ord. 13-26; Am. Ord. 24-3.2)

### **§ 24-3.3 Adoption of the Ewa development plan.**

- (a) This article is adopted pursuant to Charter § 6-1509 and provides a self-contained development plan document for Ewa. Upon enactment of this article, all proposed developments will be evaluated against how well they fulfill the vision for Ewa enunciated in the Ewa Development Plan and how closely they meet the policies and guidelines selected to implement that vision.
- (b) The plan entitled, "Ewa Development Plan," attached as Exhibit A, is adopted by reference and made a part of Chapter 24, Article 3.
- (c) Chapter 24, Article 1, entitled "Development Plan Common Provisions," in its entirety is no longer applicable to the Ewa Development Plan area. This article and the Ewa Development Plan, as adopted by reference by this ordinance, supersedes any and all common provisions previously applicable to the Ewa Development Plan area.

(1990 Code, Ch. 24, Art. 3, § 24-3.3) (Added by Ord. 13-26; Am. Ord. 24-3.3)



**§ 24-3.4 Existing zoning and subdivision ordinances, approvals, and applications.**

- (a) All existing subdivisions and zoning approved before July 22, 2013\* shall continue to remain in effect following the enactment of this ordinance.
  - (b) Subdivision and zoning ordinances applicable to the Ewa Development Plan area enacted before July 22, 2013\* shall continue to regulate the use of land within demarcated zones of the Ewa Development Plan area until such time as the subdivision and zoning ordinances may be amended to be consistent with the Ewa Development Plan.
  - (c) Notwithstanding adoption of the Ewa Development Plan, applications for subdivision actions and land use permits accepted by the department for processing before July 22, 2013\* shall continue to be subject only to applicable ordinances and rules in effect when the application is accepted for processing.
- (1990 Code, Ch. 24, Art. 3, § 24-3.4) (Added by Ord. 13-26)

***Editor's note:***

\* "July 22, 2013" is substituted for "the effective date of this ordinance."

**§ 24-3.5 Consistency.**

- (a) The performance of prescribed powers, duties, and functions by all city agencies shall conform to and implement the policies and provisions of this article and the Ewa Development Plan. Pursuant to Charter § 6-1511.3, public improvement projects and subdivision and zoning ordinances shall be consistent with the Ewa Development Plan, as adopted.
- (b) Any questions of interpretation regarding the consistency of a proposed development with the provisions of the Ewa Development Plan and the objectives and policies of the general plan shall ultimately be resolved by the council.
- (c) In determining whether a proposed development is consistent with the Ewa Development Plan, the responsible agency shall primarily take into consideration the extent to which the development is consistent with the vision, policies, and guidelines set forth in the Ewa Development Plan.
- (d) Whenever there is a question regarding consistency between existing subdivision or zoning ordinances, including any unilateral agreements, and the Ewa Development Plan, the existing subdivision or zoning ordinances shall prevail until such time as they may be amended to be consistent with the Ewa Development Plan.

(1990 Code, Ch. 24, Art. 3, § 24-3.5) (Added by Ord. 13-26)

**§ 24-3.6 Review of development and other applications.**

The review of applications for zone changes and other development approvals will be guided by the vision of the Ewa Development Plan. Decisions on all proposed developments shall be based on the extent to which the project enabled by the development approval supports the policies and guidelines of the Ewa Development Plan.



The director may review other applications for improvements to land to help the responsible agency determine whether a proposed improvement supports the policies and guidelines of the Ewa Development Plan.  
(1990 Code, Ch. 24, Art. 3, § 24-3.6) (Added by Ord. 13-26)

**§ 24-3.7 Zone change applications.**

- (a) All zone change applications relating to land in the Ewa Development Plan area will be reviewed by the department for consistency with the general plan, the Ewa Development Plan, and any applicable special area plan.
  - (1) The director will recommend either approval, approval with changes, or denial. The director's written review of the application shall become part of the zone change report which will be sent to the planning commission and the city council.
  - (2) A project master plan shall be part of an EA or EIS for any project involving 25 acres or more of land. The director shall review the project master plan for its consistency with the Ewa Development Plan.
  - (3) Any development or phase of development already covered by a project master plan which has been fully reviewed under this article shall not require a new project master plan, provided the director determines that the proposed zone change is generally consistent with the existing project master plan for the affected area.
  - (4) If a final EIS has already been accepted for a development, including one accepted before July 22, 2013,\* then a subsequent project master plan shall not be required for the development.
- (b) Projects which involve a significant zone change shall be required to submit an environmental assessment to the department of planning and permitting before an application for a zone change being accepted. Any development or phase of a development which has already been assessed under the National Environmental Policy Act (NEPA), HRS Chapter 343 (Hawai'i Environmental Policy Act, HEPA), ROH Chapter 25, or this article, and for which a FONSI has been filed or a required EIS has been accepted, shall not be subject to further EA or EIS requirements under this chapter unless otherwise required by NEPA or HEPA.
- (c) The EA shall be reviewed by the department. Based on review of the EA, the director will determine whether an EIS will be required or whether a FONSI may be issued.
- (d) If an EIS is required, the EIS must be accepted by the director before a zone change application shall be initiated.
- (e) Zone changes shall be processed in accordance with this section, Section 5.4 of the Ewa Development Plan, and Chapter 21.

(1990 Code, Ch. 24, Art. 3, § 24-3.7) (Added by Ord. 13-26)

**Editor's note:**

\* "July 22, 2013" is substituted for "the effective date of this ordinance."



**§ 24-3.8 Annual capital improvement program review.**

Annually, the director shall work jointly with the director of budget and fiscal services and the city agencies to review all projects in the city's capital improvement program and budget for compliance and consistency with the general plan, the Ewa Development Plan and other development plans, any applicable special area plan provisions, and the appropriate functional plans. The director of planning and permitting will prepare a written report of findings to be submitted to the council in accordance with Charter § 6-1503.

(1990 Code, Ch. 24, Art. 3, § 24-3.8) (Added by Ord. 13-26)

**§ 24-3.9 Five-year review.**

- (a) The department of planning and permitting shall conduct a comprehensive review of the Ewa Development Plan, adopted by reference in § 24-3.3(b), every five years after the plan's adoption and shall report its findings and recommended revisions to the council.
- (b) The Ewa Development Plan will be evaluated to assess the appropriateness of the plan's regional vision, policies, guidelines, and implementing actions, as well as its consistency with the general plan.
- (c) Nothing in this section shall be construed as prohibiting the processing of a revision to the Ewa Development Plan in the event either the biennial report of the director of planning and permitting or council recommends consideration of such a revision, pursuant to the Charter.

(1990 Code, Ch. 24, Art. 3, § 24-3.9) (Added by Ord. 13-26)

**§ 24-3.10 Authority.**

Nothing in this article shall be construed as an abridgement or delegation of the responsibility of the director, or of the inherent legislative power of the city council, to review or revise the Ewa Development Plan pursuant to the city charter and the above procedures.

(1990 Code, Ch. 24, Art. 3, § 24-3.10) (Added by Ord. 13-26)

**§ 24-3.11 Severability.**

If this article or the application thereof to any person or property or circumstances is held invalid, such invalidity shall not affect other provisions or applications of this article which can be given effect without the invalid provision or application, and to this end the provisions of this article are declared to be severable.

(1990 Code, Ch. 24, Art. 3, § 24-3.11) (Added by Ord. 13-26)

**§ 24-3.12 Conflicting provisions.**

This article shall prevail should there be any conflict with any other provisions under Chapter 24.

(1990 Code, Ch. 24, Art. 3, § 24-3.12) (Added by Ord. 13-26)



# 'Ewa Development Plan



Department of Planning and Permitting  
City And County Of Honolulu





## **Honolulu - Land Use**



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## **PREFACE AND EXECUTIVE SUMMARY**

### **PREFACE**

The **‘Ewa Development Plan** has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes.

It is one of a set of eight community-based plans intended to guide public policy, infrastructure investment, and land use decision-making over the next 25 years. Each plan addresses one of eight planning areas of O‘ahu, responding to specific conditions and community values of each region. The map on the following page illustrates these planning regions.

The plans for ‘Ewa and the Primary Urban Center, as the areas where the **General Plan** says population growth and development activity is to be directed over the next 25 years, are designated as “Development Plans.”

Plans for the remaining six areas, which are envisioned as relatively stable regions for which public actions will focus on supporting existing populations, have been entitled “Sustainable Communities Plans” to indicate the intent to focus on retaining and sustaining the unique qualities and characteristics of each of these areas.

### **THE DEVELOPMENT PLAN FIVE YEAR REVIEW PROCESS**

This Plan is a revision of the **‘Ewa Development Plan** which was adopted by the City Council in 1997. The 1997 **‘Ewa Development Plan** was the first of the eight plans to be revised in response to a 1992 City Charter amendment which changed the nature of the Development Plans from relatively detailed, parcel-specific plans to conceptual, visionary plans.

As amended in 2000, the Plan is to be reviewed every five years to determine if:

- The Plan vision, implementing land use and infrastructure policies, and implementation methods are still appropriate;
- The purpose of the Plan’s phasing guidelines is being achieved; and
- The phasing priorities in the Plan should be revised.

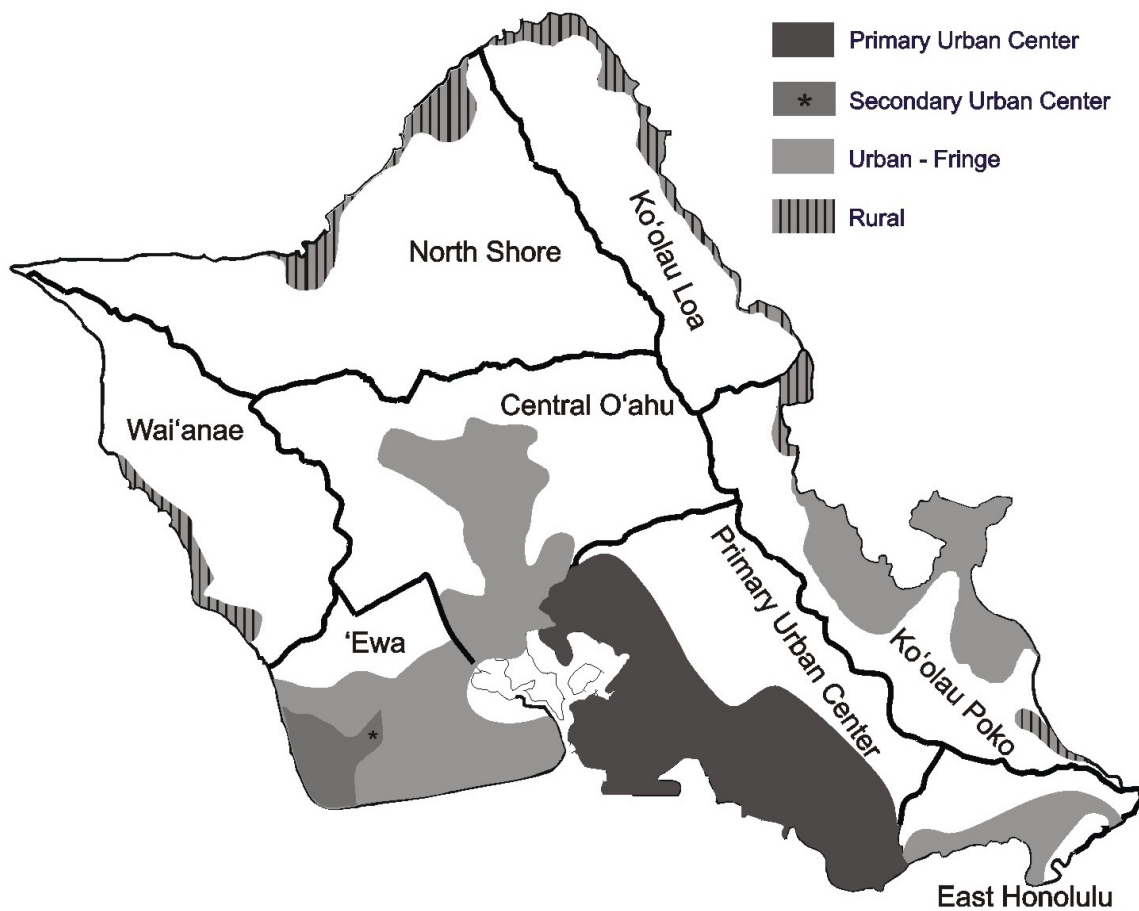
This document is the culmination of a community-based planning effort led by the Department of Planning and Permitting which involved public meetings and workshops, interviews, focus groups, and numerous meetings over the past six years.

In its final form, the Plan incorporates and responds to comments received from public outreach to community leaders, business and labor representatives, landowners, developers, and public and private agency staff through a variety of formats since 2002.

The **‘Ewa Development Plan Review Report** provides documentation of the comments and suggestions received, and details the Department’s assessments of what revisions or implementation recommendations should be made as a result.



**Exhibit ES-1**  
**Development Plan and Sustainable Communities Plan Areas for O'ahu**





**A SUSTAINABLE FUTURE FOR O‘AHU**

There has been a recent surge in widespread community discussions, actions and laws adopted to address sustainability. In 2005, the State Legislature convened a statewide group to draft a **Hawai‘i 2050 Plan**, whose primary purpose is to provide policy recommendations for creating a sustainable Hawai‘i. In 2007, greenhouse gas emissions goals for 2020 were enacted. Public service announcements dealing with conserving water and electricity abound. The concept of buildings that are designed, built and occupied with environmental considerations at the forefront largely did not exist when the current Development Plans and Sustainable Communities Plans were adopted. This setting raises the question of the role of the Development Plans and Sustainable Communities Plans. Are they the City’s version of a sustainability plan?

The answer is that they are the land development portion of a larger blueprint for sustainability. As discussed below, the **General Plan** sets long term goals for the City and County of Honolulu, across 11 major elements. Perhaps its most substantive chapter deals with population, and hence land development distribution. It sets the growth management strategy for O‘ahu. The Development Plans and Sustainable Communities provide more detail on this land management strategy, assuring that how we use the land now, and in the future, responds to the three major elements of a Sustainable Place: economic health, social equity, and environmental protection.

Since 1977, the City’s policy, as adopted by the City Council in the O‘ahu **General Plan**, has been to “keep the Country country” by fully developing downtown Honolulu from Pearl City to Kahala, by building O‘ahu’s Second City in ‘Ewa, and by developing surrounding suburban “urban fringe” areas in ‘Ewa and Central O‘ahu. Millions of dollars of taxpayers’ moneys have been paid for roadways, schools, sewers, water systems, and other infrastructure to support this pattern of development.

Our most recent projections show that O‘ahu will need over 88,000 new homes to meet expected population growth between 2005 and 2035. The **General Plan**, and the Development Plans and Sustainable Communities Plans adopted by the City Council to implement the **General Plan** provide capacity for most new homes to be built either in downtown Honolulu, ‘Ewa, or Central O‘ahu.

Inevitably, this requires that some prime agricultural land in ‘Ewa inside the Community Growth Boundary be used to provide the required single and multi-family housing (even though the ‘Ewa Development Plan does protect some 3,000 acres of prime agricultural land outside the Community Growth Boundary). The loss of prime agricultural land in ‘Ewa is the cost of insuring that the rural areas in Wai‘anae, North Shore, and the Windward side and along Kunia Road in Central O‘ahu are protected against development.

The issues addressed either directly or indirectly by these regional plans certainly overlap with other planning responsibilities of other departments, such as water delivery and consumption, crime reduction, increasing public health, and developing responsive transportation systems. Collectively, these efforts comprise the strategy of developing a Sustainable Future for O‘ahu.

**INTEGRATING PRINCIPLES OF SUSTAINABILITY INTO DECISION-MAKING PROCESSES**

A community that can successfully manage change will flourish and prosper in the future. For this plan, this means ensuring that planned growth and development respects and adheres to the principles of sustainability.

These principles of sustainability are intended to promote the long-term health of O‘ahu, its people, and its community resources for current and future generations:



- Protect lands designated for agriculture, physical and biological resources, and where appropriate, open spaces and view planes.
- Use resources so they are not depleted, permanently damaged or destroyed.
- Encourage planning, development, and construction technologies that minimize negative environmental impacts.
- Respect the cultural, social and physical resources that shape and reinforce residents' sense of community and quality of life.
- Guide the process of change. Strive to make decisions based on an understanding of the effects such decision will have on the land and community resources.
- Strive for balance between economic prosperity, social and community well-being, and environmental stewardship.
- As an integral part of the planning process, consider the long-term impact of proposed actions and prepare plans that can accommodate the needs of future generations accordingly.

### THE HONOLULU LAND USE PLANNING AND MANAGEMENT SYSTEM

The City and County of Honolulu guides and directs O'ahu land use and development through a three-tier system:

- The **General Plan** forms the first tier of this system. First adopted by resolution in 1977, the **General Plan** is a relatively brief document, consisting primarily of one-sentence statements of objectives and policies. It has been amended several times, but the basic objectives and policies set forth in the 1977 plan remain intact.
- The second tier of the system is formed by the **Development Plans and Sustainable Communities Plans**, which are adopted and revised by ordinance. These plans address eight geographic regions of the island, including the Primary Urban Center, 'Ewa, Central O'ahu, Wai'anae, North Shore, Ko'olau Loa, Ko'olau Poko, and East Honolulu.
- The third tier of the system is composed of implementing ordinances and regulations, including the **Land Use Ordinance** (Honolulu's zoning code), the **Subdivision Rules and Regulations**, and the City's **Capital Improvement Program**. Mandated by the City Charter, these ordinances and regulations constitute the principal means for implementing the City's plans. These ordinances and regulations are required to be consistent with the General Plan, the Development Plans, and each other.

In addition, the Development Plans and Sustainable Communities Plans are supplemented by two planning mechanisms that are not mentioned in the Charter:

- **Functional plans** (such as the **O'ahu Regional Transportation Plan** or the **O'ahu Water Management Plan**), some of which are mandated by state or federal regulations, provide long-range guidance for the development of public facilities and infrastructure; and
- **Special Area Plans** (such as the **Waipahu Town Plan** or the **Wahiawa Urban Design Plan**) give specific guidance for neighborhoods, communities or specialized resource areas.

### AUTHORITY OF THE DEVELOPMENT AND SUSTAINABLE COMMUNITIES PLANS

The authority of the Development Plans and Sustainable Communities Plans (hereinafter referred to as "Development Plans" for simplicity) is derived from the City Charter, which mandates preparation of a General Plan and Development Plans to guide "the development and improvement of the city."

Together with the **General Plan**, the Development Plans provide policies to guide land use and budgetary actions of the City and to evaluate progress toward the General Plan objectives.



The Charter provides that “public improvement projects and subdivision and zoning ordinances shall be consistent with the development plan for that area.” Although the Development Plans are not themselves regulatory and require implementing ordinances (the “third tier” discussed in the previous section), they provide guidance that decision makers and administrators should follow, to the extent it is sensible, in approving project development and in revising rules and regulations and standard policies. They are policy tools that are to be used, in conjunction with the programs and budgets of the City, to accomplish the objectives of the City and as guides for decisions made by the private sector. Consistent with the Charter’s description of the Development Plans as “conceptual schemes” and “a policy guide,” the language, maps, and illustrations of the Development Plans should not be deemed to be regulatory.

The plans are also intended to aid decisions made in the private sector by clearly indicating what the City’s development priorities are, where development is appropriate, and what kinds of development are appropriate in each location. The 1992 Charter amendments established that the purpose of the Development Plans is to provide:

- “priorities . . . (for the) coordination of major development activities;” and
- sufficient description of the “desired urban character and the significant natural, scenic and cultural resources . . . to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions.”

The revised plan presented in this document conforms to that mandate.

## **EXECUTIVE SUMMARY**

This plan is organized in five chapters and an appendix, as follows:

- Chapter 1: ‘Ewa’s Role in O‘ahu’s Development Pattern defines the ‘Ewa’s role and identity within the overall framework of island wide planning and development;
- Chapter 2: The Vision for ‘Ewa’s Future summarizes the community-based vision for ‘Ewa’s future, discusses key elements of that vision, and presents illustrative maps and tables;
- Chapter 3: Land Use Policies, and Guidelines provides the land use policies needed to implement the vision for ‘Ewa described in Chapter 2;
- Chapter 4: Public Facilities and Infrastructure Policies and Guidelines provides the infrastructure policies needed to implement the vision for ‘Ewa described in Chapter 2;
- Chapter 5: Implementation identifies the means through which the policies will be applied, including zone changes, and infrastructure budgeting and development; and
- Appendix A includes:
  - Four conceptual maps (Open Space, Urban Land Use, Public Facilities, and Phasing) which illustrate the vision and policies of the Plan; and
  - A glossary of terms used on those maps.

The following summarizes the vision, and lists the land use and infrastructure policies of the Plan and the means of implementation.

### **‘EWA’S ROLE IN O‘AHU’S DEVELOPMENT PATTERN**

- Provides a second urban center for O‘ahu with its nucleus in the City of Kapolei and job centers in resort areas, industrial areas, and the University of Hawai‘i West O‘ahu;
- Provides a wide range of master planned residential areas to relieve developmental pressures on O‘ahu’s rural areas and to provide housing types not readily provided in the Primary Urban Center (Kahala to Pearl City);



- Protects and promotes diversified agriculture on prime agricultural lands along Kunia Road and in the Explosive Safety Quantity Distance arc around the Pearl Harbor West Loch Naval Munitions Command; and
- Provides resort areas at Ko ‘Olina and at Ocean Pointe.

### THE VISION TO 2035

- Population growth from 68,700 in 2000 to over 164,000;
- Addition of over 35,000 new homes to the 20,800 homes in ‘Ewa in 2000;
- Job growth from 16,400 nonconstruction jobs in 2000 to over 87,000;
- Growth of the City of Kapolei to include over 8,000 residents and provide almost 20,000 private and public nonconstruction jobs;
- Development of the University of Hawai‘i West O‘ahu campus to serve 7,600 students and employ 1,040 staff and faculty by 2025; and
- Resort development at Ko ‘Olina and at Ocean Pointe to include over 7,200 visitor units.

### ELEMENTS OF THE VISION

- *Protect Agricultural Land and Open Space* by containing all urban growth within the existing Community Growth Boundary, and creating an open space network within the Community Growth Boundary by linking together open space areas with greenways;
- *Develop the Secondary Urban Center* to provide jobs at the City of Kapolei, Ko ‘Olina Resort, the University of Hawai‘i West O‘ahu campus, and industrial and commercial areas throughout ‘Ewa so an increasing share of Leeward O‘ahu residents will not have to commute to downtown Honolulu;
- *Build Master Planned Residential Communities* that Support Walking, Biking and Transit Use;
- *Protect Natural, Historic, and Cultural Resources*; and
- *Provide Adequate Infrastructure* to meet the needs of new and existing development.

### IMPLEMENTING POLICIES AND GUIDELINES

Chapter Three provides **land use development policies and implementing guidelines** for:

- Open Space Preservation and Development;
- Regional Parks and Recreation Complexes;
- Community-Based Parks;
- Historic and Cultural Resources;
- City of Kapolei;
- ‘Ewa Villages;
- Ocean Pointe/Hoakalei;
- Existing and Planned Residential Communities;
- Planned Commercial Retail Centers;
- Ko ‘Olina Resort;
- Industrial Centers;
- Kalaeloa;
- Pearl Harbor Naval Station (West Loch); and
- University of Hawai‘i West O‘ahu.

Chapter Four contains **infrastructure policies and implementing guidelines**, including policies on:

- Transportation Systems;
- Water Allocation and System Development;
- Wastewater Treatment;



- Electrical Power Development;
- Solid Waste Handling and Disposal;
- Drainage Systems;
- School Facilities;
- Public Safety Facilities; and
- Other Community Facilities.

Chapter Five describes **the means for implementing the ‘Ewa Development Plan** through:

- Focusing residential and non-residential development to areas within the Community Growth Boundary;
- Guiding development within areas of critical concern with Special Area Plans;
- Incorporating the Plan vision and policies in the review of zone changes and other land use approvals and in establishing conditions for these land use approvals which will help ensure the vision and policies are implemented;
- Incorporating the Plan vision and policies in the review of projects to be added to the Public Infrastructure Map and funded through the Capital Improvement Program budget;
- Evaluating progress made in fulfilling the Plan vision every two years as part of the mandated Biennial Report; and
- Conducting an evaluative review of the Plan vision, policies and implementation five years after the adoption of the revised Plan.



## **Honolulu - Land Use**



**CHAPTER 1. ‘EWA’S ROLE IN O‘AHU’S DEVELOPMENT PATTERN**

‘Ewa plays a key role in implementing the directed growth policies of the **General Plan of the City and County of Honolulu**. Campbell Industrial Park opened in the early 1960's, bringing industry and jobs to the Leeward Coast, which previously had been predominantly a sugar economy and plantation lifestyle. In the 1970's, residential growth began in ‘Ewa with the development of Makakilo and ‘Ewa Beach.

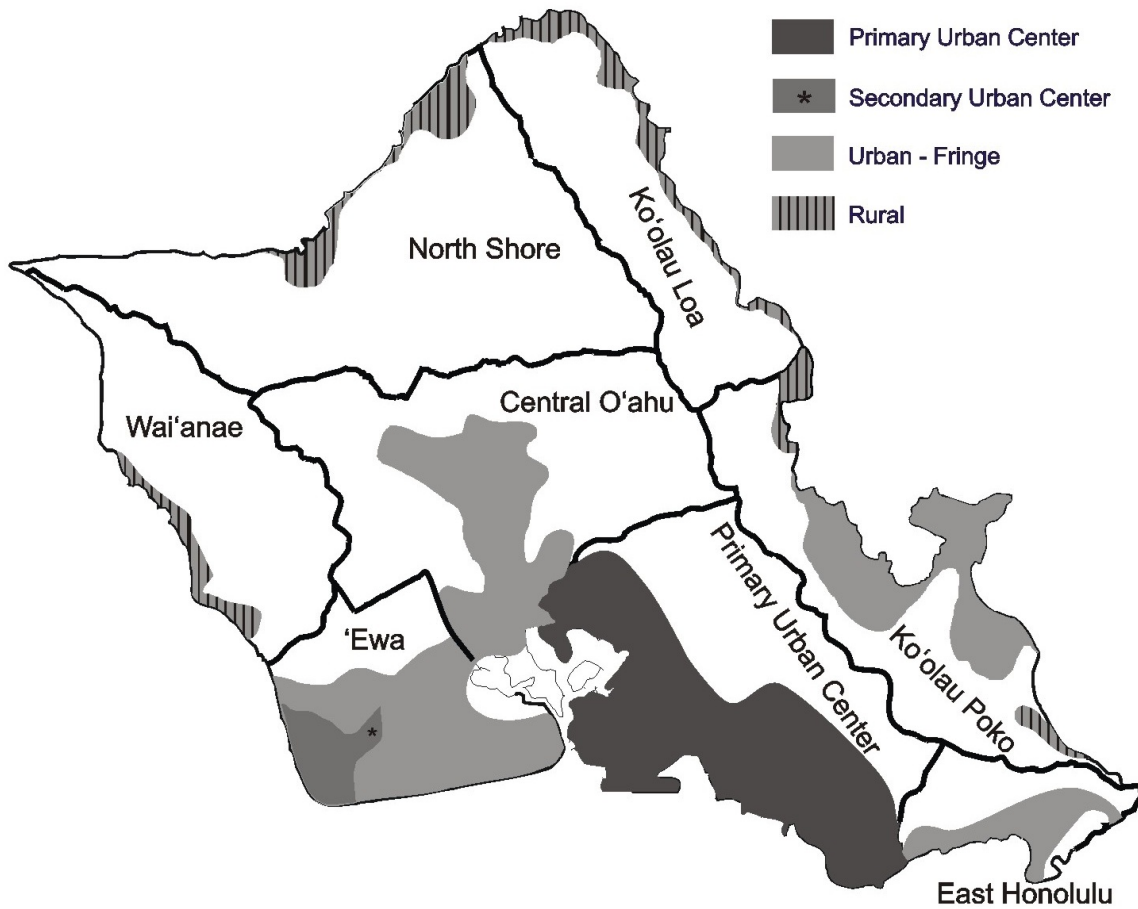
In 1977, the Honolulu City Council approved a new **General Plan**, which designated ‘Ewa as the location for a Secondary Urban Center for O‘ahu to be centered in the Kapolei area. The Secondary Urban Center was to be the focus of major economic activity and housing development, and a center for government services. While the **General Plan** promotes full development of the Primary Urban Center, it also encourages development of the Secondary Urban Center at Kapolei, and residential development of the urban fringe areas in ‘Ewa and Central O‘ahu.

This revision of the **‘Ewa Development Plan** reaffirms that role and amplifies how the role can be accomplished. In support of the **General Plan** policies, the **‘Ewa Development Plan**:

- Provides a secondary employment center with its nucleus in the City of Kapolei to supplement the Primary Urban Center (PUC) and to divert commuter traffic from the PUC;
- Concentrates primary employment activities at industrial and resort areas and at government service and higher education centers around the City of Kapolei so that regional office and retail activities are attracted to the City of Kapolei;
- Provides for significant residential development throughout ‘Ewa, consistent with the **General Plan**, to meet the needs of O‘ahu’s citizens;
- Provides for a variety of housing types from affordable units and starter homes to mid size and larger multi family and single-family units;
- Promotes diversified agriculture on prime agricultural lands along Kunia Road and surrounding the West Loch Naval Magazine in accordance with the **General Plan** policy to support agricultural diversification in all designated agricultural areas on O‘ahu;
- Provides a secondary resort area at Ko ‘Olina;
- Helps relieve urban development pressures on rural and urban fringe Sustainable Communities Plan Areas (Wai‘anae, North Shore, Koolauloa, Ko‘olau Poko, and East Honolulu) so as to preserve the “country” lifestyle of the rural areas and sustain the stable, low density residential character of the urban fringe areas; and
- Provides, along with the PUC, a focus for directed and concentrated public and private infrastructure investment to support growth.



**Exhibit 1.1**  
**Development Plan and Sustainable Communities Plan Areas for O'ahu**





## CHAPTER 2. THE VISION FOR ‘EWA’S FUTURE

This chapter presents a statement of the vision for ‘Ewa’s future, discusses the key elements of the vision, and presents illustrative maps and tables.

### 2.1 VISION STATEMENT

This vision for ‘Ewa has two horizons. The first horizon extends from the present to the year 2035. This horizon was used to project likely socio-economic change in ‘Ewa and to assess the infrastructure and public facility needs that will have to be met over that period.

**The Vision to 2035** - By 2035, the ‘Ewa Development Plan area shown in Exhibit 1.1 will have experienced tremendous growth, and will have made significant progress toward providing a Secondary Urban Center for O‘ahu. Population will have grown from 68,700 people in 2000 to over 164,000. Between 2000 and 2035, over 35,000 new housing units will have been built in a series of master planned communities.

Job growth will be equally impressive, rising from 16,400 nonconstruction jobs in 2000 to over 87,000 in 2035. O‘ahu residents and visitors will be attracted to ‘Ewa by a new university campus, the Ko ‘Olina Resort, the Hoakalei Resort, a major super regional park, and a thriving City of Kapolei which has retail and commercial establishments and private and government offices.

**Beyond 2035** - In the course of the Development Plan revision in 1995, it became clear that there was value in looking beyond the planning horizon to identify what ‘Ewa should look like when “fully” developed.

Such a perspective helped identify where open space should be preserved within the urbanized area, and where to set the limits to development in ‘Ewa for the foreseeable future. As such, this second horizon might be called the “built-out” horizon and is probably 40 to 50 years in the future.

### Protect Agricultural Lands and Open Space

Urban growth will be contained within a boundary that will **protect prime agricultural lands** along Kunia Road and within the Pearl Harbor Naval Munitions Command Explosive Safety Quantity Distance (ESQD) arc for diversified agriculture. Preservation of prime agricultural lands *mauka* of H-1 and on the Wai‘anae side of Kunia road for use in diversified agriculture will help retain open space and views, in addition to supporting economic diversification.

Within the Community Growth Boundary, ‘Ewa will be built around a regional system of **open space and greenways** so that ‘Ewa has the feel of a network of communities “within a garden”, as opposed to an unbroken suburban sprawl from Ko ‘Olina to ‘Ewa Beach.

Residents of these communities will enjoy **easy access to the ocean** through two major marinas, numerous beaches and a shoreline walkway from Ko ‘Olina to ‘Ewa Beach. Those interested in boating and ocean fishing will be able to use marina facilities and boat ramps at Ko ‘Olina, Kalaeloa, and Hoakalei.

Residents will be able to easily access beaches, swimming and surfing spots all along the entire ‘Ewa coastline by road or a network of pedestrian paths and bikeways. Linear shoreline access will be provided along the coast from Ko ‘Olina to ‘Ewa Beach. At its center will be a major new regional park and recreation complex at Kalaeloa (on



the former Barbers Point Naval Air Station), which will provide access to the ocean and beaches as well as offering significant active and passive recreation facilities.

A network of **greenways** will link the communities together, with landscaping along major roads such as Kapolei Parkway, Kualaka'i Parkway (formerly North-South Road), and Fort Weaver Road, and pedestrian and bike paths along grassed drainageways and utility corridors. A major pedestrian and bike path will be provided by the Pearl Harbor Historic Trail, which extends about 18.5 miles from the U.S.S. Arizona Visitor Center through the **'Ewa Development Plan** area and on to Nānākuli along the OR&L Railroad right-of-way.

**Open space** will be preserved in parks, golf courses, and agricultural areas that will help to protect significant public views. Wildlife habitats will be located at Kalaeloa, Hoakalei, and West Loch.

**Prime agricultural land loss.** Development of jobs in the City of Kapolei and the areas around it and creation of master planned residential communities in the 'Ewa Urban Fringe Areas has been a key element in the City's growth management strategy adopted as part of the 1977 **General Plan** and reinforced by subsequent City actions approving land use plans and infrastructure investments since 1977. It is true that the development of 'Ewa lands within the Community Growth Boundary has resulted in the conversion of thousands of acres of highly productive agricultural land as the sugar plantations closed, and new homes and job centers were developed.

However, this is the cost of protecting agricultural lands and open space in the rural areas of O'ahu. By focusing new job growth and residential development in 'Ewa, Central O'ahu, and Honolulu's core urban area from Pearl City to Kahala, the vision of keeping the Country country can be achieved. Thousands of acres of agricultural lands in the Sustainable Communities Plans (SCP) areas are protected by the Community Growth Boundaries in those plans, including 50,000 acres in the Central O'ahu and North Shore Sustainable Communities Plan areas and hundreds of acres in other SCP areas including Wai'anae, near Kahuku, in Waiāhole/Waikāne, and in Waimānalo.

### **Develop the Secondary Urban Center**

A key component of the vision is the **Secondary Urban Center**, which will provide a wide range of jobs located at visitor units and activity centers in Ko 'Olina and Hoakalei, in heavy and light industrial areas near the Kalaeloa Barbers Point Deep Draft Harbor, in offices and retail centers located at the City of Kapolei and community and neighborhood centers in residential communities, at the University of Hawai'i West O'ahu campus, and in diversified agriculture activities located along Kunia Road and around the Pearl Harbor Naval Munitions Command.

At the heart of the Secondary Urban Center will be the **City of Kapolei** with an urban mix of retail, office and residential uses. By 2035, it is projected that the City of Kapolei will house over 8,000 residents and provide work sites for over 17,000 private jobs and 2,400 City and State jobs (located primarily at the City's Civic Center and Judicial Center). The City Center will become a regional commercial center, attracting customers from all parts of O'ahu.

Many of the jobs in the City of Kapolei will be supported by development of the **University of Hawai'i West O'ahu** campus, which is expected to have 7,600 students and 1,040 staff and faculty by 2025. Continued expansion of **industrial uses** at Campbell Industrial Park, Kalaeloa Barbers Point Deep Draft Harbor, and Kapolei Business Park; and growth of the **Ko 'Olina Resort** and the **Hoakalei Resort** to include over 7,200 visitor units by 2035 will also provide basic jobs which will support office and retail jobs in the City of Kapolei.



**Build Master Planned Residential Communities That Support Walking, Biking, and Transit Use**

Growth in ‘Ewa will mean **community building**, not just project development. Substantial residential growth (over 35,500 new units between 2000 and 2035) will occur primarily in master planned communities including the City of Kapolei, East Kapolei (DHHL East Kapolei, UH West O‘ahu, and Ho‘opili), ‘Ewa by Gentry, ‘Ewa Villages, Kapolei West, Ko ‘Olina, Makaīwa Hills, Makakilo, Ocean Pointe/Hoakalei, and the Villages of Kapolei. (See Exhibit 2.3.)

The master plans and design of new developments must demonstrate how they would **create communities that interact with neighboring communities and support the vision** for development of the entire ‘Ewa region. Such communities should be designed with identifiable and easily accessible town and village centers or “main street areas” and incorporate a mixture of residential and commercial development. While not every community will have a “main street”, all should have a community center.

These communities must be designed to meet the needs of a wide range of families and age groups. **Ample housing** should be provided for families needing affordable units and starter homes as well as for those seeking large multi-family and single-family units. **Housing for persons of all ages** will be needed, including students going to school at the UH - West O‘ahu campus, young families seeking their first home, and senior citizens wanting a retirement home close to their grandchildren. Such a desirable variety in housing types could be partially achieved through the inclusion of “granny flats” (small, accessory apartments) and/or “‘Ohana” units where infrastructure will support these additions.

**Separate identities** should be created for existing and planned communities by using open space, architectural design, streetscape treatments and landscaping which links to the regional open space and greenway network.

**Communities Designed to Reduce Automobile Use** - ‘Ewa will be developed with a transportation system which reduces congestion by providing connectivity, both within and between subdivisions, provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile.

Where allowed by terrain, communities will be designed with multiple street/walkway connections to adjacent communities and collector roads at approximate 1/4 mile intervals, thereby facilitating and encouraging convenient auto, pedestrian and bikeway access to parks, schools, neighborhood shopping and transit corridors. These connections will also reduce congestion on major regional roads by offering multiple alternative routes and facilitate improved neighborhood access for emergency and utility vehicles.

Medium density housing and commercial development will be built along **a rapid transit** corridor extending from the City of Kapolei to Waipahū and will support efficient use of buses and other forms of mass transit along the corridor, allowing some residents to minimize automobile use.

An elevated rapid transit system will be developed on the corridor. The first segment of the rapid transit system will start near the proposed Kroc Center on Kualaka‘i Parkway and continue on to Waipahū along Kualaka‘i Parkway and Farrington Highway. Sufficient land will be reserved to allow extension of the system through Kalaeloa to the City of Kapolei, ending near the intersection of Kapolei Parkway and the planned extension of Hānu‘a Street. See Appendix A: Public Facility Map, and Phasing Map.



**Protect Natural, Historic, and Cultural Resources**

The **‘Ewa Development Plan** provides a vision for preservation, conservation, and enhancement of community resources.

**Natural resources** will be conserved through retaining natural drainageways, protecting valuable plant and wildlife habitats, by cleaning up contaminated areas and by efficiently using all water supplies through conservation measures and distribution system leak repair, by developing a dual water distribution system with potable water for drinking and other clean water uses and nonpotable water for irrigation and industrial uses, and reclamation of non-potable water from waste-water effluent where feasible.

**Cultural and historical resources** will be preserved by retaining visual landmarks and significant views, and by preserving significant historic, cultural, and archaeological features from ‘Ewa’s past, and by conducting surveys to thoroughly assess the historical significance of sites and structures affected by development projects and to identify the appropriate measures to preserve the historic and cultural values of the resources.

**Provide Adequate Infrastructure to Meet the Needs of New and Existing Development**

Public agencies will work with the community (residents, businesses, developers, and landowners) to address current deficiencies in roads, schools, and parks and to create adequate infrastructure to meet the needs of the residential and working population of the area.

Completion of the first increment of the elevated fixed guide way transit system (from East Kapolei to Ala Moana Shopping Center) is critical to the **O‘ahu General Plan** policy of relieving development pressure elsewhere on O‘ahu by developing the Second City and the Urban Fringe in ‘Ewa. It is needed to provide an effective and reliable alternative to commuting by auto for a significant numbers of commuters by 2020. Without the project, traffic delays for ‘Ewa commuters would increase by 46 percent compared to today according to the **Honolulu High-Capacity Transit Corridor Project Environmental Impact Statement** (p. 3-28).

Where possible and practical, construction of new development that generates increased service demands for public schools, emergency medical services, and roadway capacity, will be coordinated with the provision of needed infrastructure capacity.

Public-private mechanisms for financing infrastructure such as Tax Increment Financing (TIF) and Community Facilities Districts (CFD) should be considered to support timely infrastructure provision.

Public agencies’ planning for infrastructure needs will be guided by the Development Plan priorities for residential and commercial development. See the discussion of Planned Regional Development in Section 2.2.10.



## **2.2 KEY ELEMENTS OF THE VISION**

The vision for ‘Ewa’s future will be implemented through the following key plan elements:

- 2.2.1 Community Growth Boundary
- 2.2.2 Retention of Agricultural Lands
- 2.2.3 Open Space and Greenways
- 2.2.4 Kalaeloa Regional Park
- 2.2.5 Secondary Urban Center
- 2.2.6 Master Planned Residential Communities
- 2.2.7 Communities Designed To Support Nonautomotive Travel
- 2.2.8 Conservation of Natural Resources
- 2.2.9 Preservation and Enhancement of Historic and Cultural Resources
- 2.2.10 Phased Development

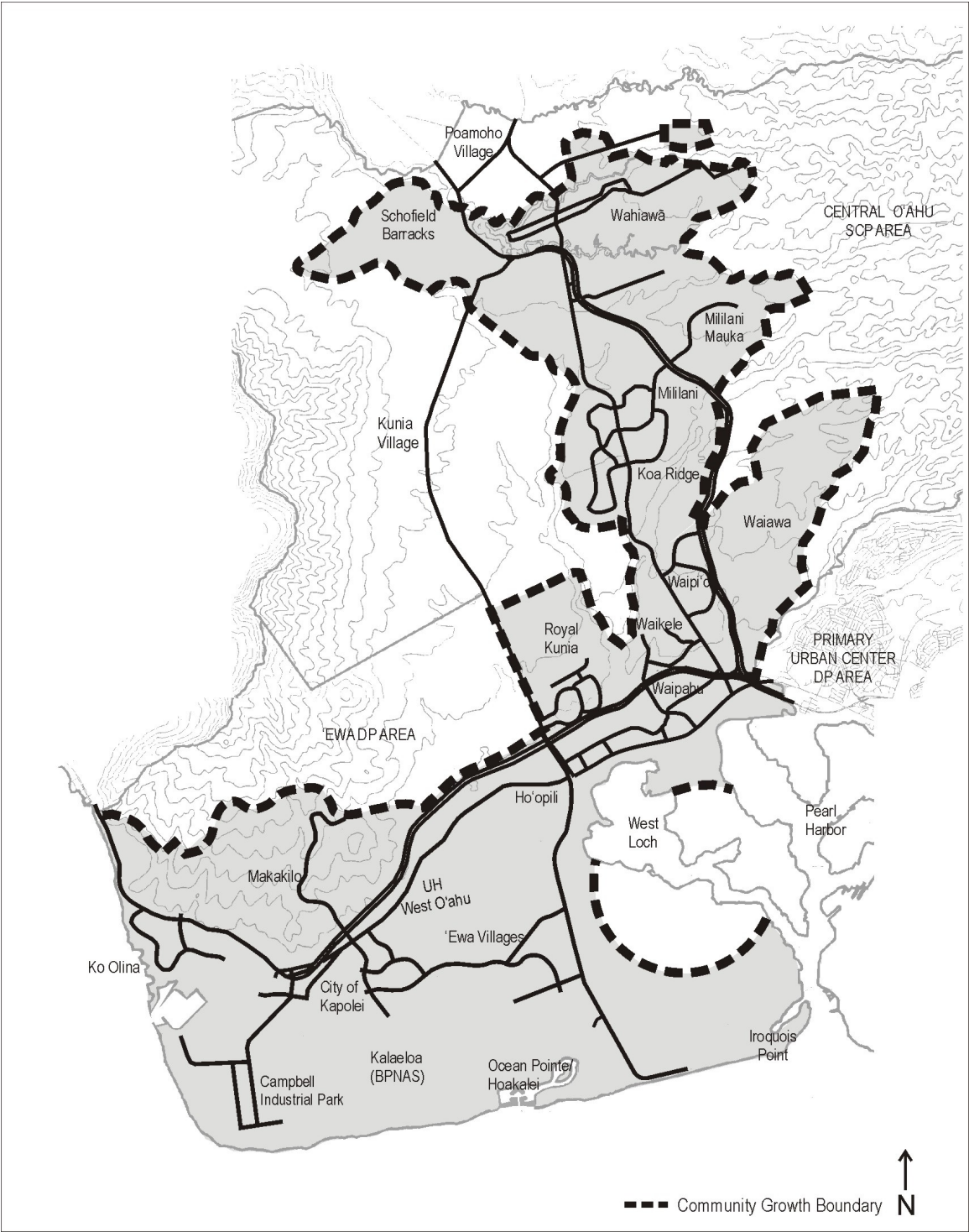
Each of these elements is discussed in the following sections.

### **2.2.1 COMMUNITY GROWTH BOUNDARY**

The Community Growth Boundary for ‘Ewa gives long-range protection from urbanization for over 3,000 acres of prime agricultural land and for preservation of open space while providing adequate land for urban development in ‘Ewa for the foreseeable future. The Community Growth Boundary for ‘Ewa is illustrated in Exhibit 2.1 and shown in greater detail on the four conceptual maps in Appendix A as described below.



**Exhibit 2.1**  
**Community Growth Boundary for 'Ewa and Central O'ahu**





**Boundary Description** - The *mauka* portion of the boundary follows the Special Management Area boundary around Kahe Point, runs along the northern boundary of the Makaīwa Hills project and the existing Makakilo development, and then follows the proposed extension of Makakilo Drive to the H-1 Freeway. It then follows the H-1 Freeway to the intersection with Kunia Road and then up Kunia Road to the boundary between the **Central O‘ahu Sustainable Communities Plan** and **‘Ewa Development Plan** areas.

The *makai* portion of the boundary excludes the Explosive Safety Quantity Distance (ESQD) zone for the Pearl Harbor Naval Munitions Command.

**Protection for Prime Agricultural Land** - The Community Growth Boundary protects prime agricultural lands on the Wai‘anae side of Kunia Road and *mauka* of H-1 freeway from urban development for the foreseeable future, thereby providing an incentive for landowners to give long term leases to farmers. No proposals for urban uses outside the Community Growth Boundary will be considered.

**Open Space Network** - Within the Community Growth Boundary, significant acreage will be retained in open space in parks, wildlife habitats, golf courses, and natural and grass-lined drainageways. (Of the estimated 23,000 acres within the Community Growth Boundary, 5,000 acres or 22 percent of the acreage will be in open space.)

**Capacity for Growth** - Even with the amount of land reserved for agriculture, parks, and open space, there is ample capacity within the Community Growth Boundary for residential, commercial, and industrial development extending beyond the 20-year horizon (2035).

As shown in Table 2.1, over 4,100 acres was available for residential development; almost 700 acres for retail and office development; and over 1,600 acres for industrial development as of July 2009. Providing this capacity allows for competition and promotes more affordable residential, commercial, and industrial development.

Over 50 percent of the residential development acreage is already zoned. Developers of these parcels can apply for subdivision, construction permit, and building permit approvals as needed to meet market demand. However, these projects will be subject to infrastructure capacity requirements established through unilateral agreements and subdivision approval requirements.

An additional 19 percent of the residential development acreage is exempt from County zoning and land use regulations. Almost 1,400 acres are controlled by either the State Department of Hawaiian Home Lands or the Hawai‘i Community Development Authority who are developing their lands under master plans approved by the Governor. The timing and conditions of the development of these lands are not subject to review and approval by the City Council.

The remaining residential development acreage which is neither zoned nor exempt will require land use approvals by the State Land Use Commission and the City Council before development can proceed. About 1,400 acres of the lands indicated for development are in the State Agriculture Land Use District, and will first have to be approved for transfer to the State Urban District by the State Land Use Commission and then have urban zoning approved by the City Council before they can be developed.

Table 2.1 shows the projected number of housing units and the approximate gross acreage by land use category for previously approved and proposed projects. These represent general indicators of the land areas involved and possible densities. In determining actual land uses and densities, project planning, design and review of project zoning change applications should be directed by the planning policies and guidelines provided in Chapters 3 and 4.



TABLE 2.1: 'EWA DEVELOPMENT CAPACITY AND ENTITLEMENT STATUS								
PROJECT AREA <sup>(1)</sup>	Potential Housing Units	Number of Units which		DEVELOPABLE LAND AREA (Gross Acres)				
		Need LUC <sup>(2)</sup>	Need ZON <sup>(3)</sup>	Resid.	Resort	Retail	Ind.	Total
A Kalaeloa Barbers Point Harbor & vicinity							210	210
B City of Kapolei								
Mehana at City of Kapolei	1,130			93		2		95
Leihano Senior Community	714			43				43
Kapolei Mixed Use <sup>(4)</sup>	4,000					91		91
Kapolei Commercial (incl. Kapolei Commons)						91		91
C Ewa by Gentry <sup>(5)</sup>	658			94			64	158
D Ocean Pointe/Hoakalei	2,095			269	39	45	28	381
E 'Ewa Villages	590			54				54
F Kapolei Business Park & vicinity							268	268
Kapolei Harborside							339	339
G Kapolei Knolls								0
H Pālailai Residential	350			30		14		44
I Kapolei Shopping Center								0
J Ko 'Olina Resort	3,286			50	42	16		108
K Makāiwa Hills (Lower)	2,280			424		31		455
L Makakilo C & D1	422			105				105
M Villages of Kapolei	660			28		27		55
N Kapolei West <sup>(6)</sup>	2,500			234		12		246
O, R 'Ewa by Gentry Makai: East and West	1,067			172				172
P East Kapolei: Ho'opili <sup>(7)</sup>	11,750	11,750	11,750	925		145	50	1,120
Q Laulani Commercial						20		20
S Makakilo D2	400	400	400	96				96
T UH West O'ahu Campus <sup>(8)</sup>	4,040			184		169		353
U Makāiwa Hills (Upper)	2,000			484				484
V DHHL East Kapolei <sup>(9)</sup>	2,513		NA	341		67		408
W Kapolei North	1,200	1,200	1,200	150				150
Kalaeloa (HCDA) <sup>(9)</sup>	6,500		NA	267		8	685	960
<b>TOTAL</b>	48,155	13,350	13,350	4,043	81	738	1,644	6,506
TOTAL ZONED or EXEMPT	34,805			2,872	81	593	1,594	5,140
TOTAL EXEMPT FROM CITY ZONING	9,013			608	0	75	685	1,368

**NOTES:**

See Exhibit 2.3 for location of projects. Estimated capacity and entitlements of existing projects as of July 2009.

- (1) Parts may not sum to totals shown due to rounding.
- (2) Project needs State Land Use Commission approval of a Land Use District amendment.
- (3) Project needs City Council approval of a zone change (and may need State Land Use District Boundary Amendment).
- (4) As of December 2008, included around 84 acres of vacant BMX-3 zoned lands which could provide residential units as well as commercial and office space.
- (5) Industrial acreage partly zoned for industrial mixed use.
- (6) Formerly Ko 'Olina Phase II. Thirty seven of the residential acres are for mixed use residential development and may include 100,000 s.f. of commercial space. Twenty seven of the commercial acres include mixed-use residential development of 300 units.
- (7) Twenty acres near Farrington/Fort Weaver intersection for community commercial center; remainder intended for neighborhood commercial use. Some residential acreage may also support retail and office uses in mixed use projects.
- (8) The 116 retail acres are lands zoned BMX-3 which can include both retail space and residential units. The residential acreage includes lands set aside for student housing.
- (9) DHHL and HCDA can exempt themselves from County zoning.



**2.2.2 RETENTION OF AGRICULTURAL LANDS**

The closure of the O‘ahu Sugar Company in 1995 raised serious questions about how thousands of acres of former sugar lands in ‘Ewa should be used in the future. The **‘Ewa Development Plan** protects the highest value prime agricultural lands from urban development.

These high value lands are located in two areas: lands *mauka* of H-1 Freeway and on the Wai‘anae side of Kunia Road, and lands in the Explosive Safety Quantity Distance (ESQD) arc around the Pearl Harbor Naval Munitions Command. State agencies indicated in 1996 that these prime agricultural lands should have the highest priority for retention of all the prime agricultural lands in ‘Ewa.

These 3,000 acres of agricultural land, protected by the Community Growth Boundary, have been rated, in the most authoritative studies, as potentially among the most productive lands for diversified agriculture in the State.

The State Department of Agriculture’s November 1977 study, **Agricultural Lands of Importance to the State of Hawai‘i (Revised)**, indicates that the Kunia lands and a portion of the lands within the Navy’s ESQD arc are “prime” agricultural lands which generally produce the largest yields and the best quality crops for the least expenditure of energy.

The University of Hawai‘i Land Study Bureau’s December 1972 bulletin, **Detailed Land Classification - Island of O‘ahu**, rated productive capacity of the Kunia lands as either A or B and the lands within the Navy’s ESQD as B or C (An A rating was given to the highest productivity lands and E was given to the lowest.)

These high value agricultural lands have unique advantages in weather, soil productivity, infrastructure, and water availability from the Wai‘ahole Ditch, and access to the local markets of Honolulu and to export markets through Honolulu International Airport.

Successful agricultural operations are currently being pursued on the former sugar lands in the Kunia area, including seed crops, vegetables, melons, and other truck crops. In addition, the Hawai‘i Agriculture Research Center (HARC) at the corner of H-1 and Kunia Road is conducting studies on vegetable crops and forage to help diversified agricultural activities in the area. Agricultural lands along Kunia Road and north of H-1 have recently been sold to agricultural companies committed to maintaining those lands in agriculture. In addition, the Navy currently leases out 1,025 acres for agriculture on its lands surrounding the Pearl Harbor Naval Munitions Command. However, agricultural operations on these lands are limited by military safety restrictions and the brackish water supply.

By protecting agricultural lands from urban development, an opportunity is created for retention and development of diversified agriculture on small farms and agricultural parks. Public-private partnerships will be needed to solve problems of lease terms and tenure, access to capital, research, and marketing if this vision is to be realized.

**2.2.3 OPEN SPACE AND GREENWAYS**

A network of Open Space and Greenways will link the Secondary Urban Center and associated employment centers, new master planned residential developments and revitalized established communities, an ‘Ewa shoreline park, and a major regional park at Kalaeloa. See the Open Space Map in Appendix A.

Table 2.2 lists the major components of the ‘Ewa Open Space and Greenways Network.



## The Open Space and Greenways Network:

- connects existing and planned communities through a system of linear greenbelts, consisting of drainage, transportation, and utility corridors, and
- creates separate identities for existing and planned communities through use of landscape buffers, golf courses, wildlife preserves, agricultural lands, regional parks, and other large open spaces at the urban edges.

An important new element in the 'Ewa Open Space and Greenways Network will be an 'Ewa Shoreline Park that will stretch along the 'Ewa coastline from the entrance to Pearl Harbor to Ko 'Olina. It will be anchored by the Kalaeloa Regional Park planned for Kalaeloa.

The Pearl Harbor Historic Trail, running partly along the Pearl Harbor shoreline and across the 'Ewa Plain on the OR&L right-of-way, will allow bikers and pedestrians to travel as far as Nanakuli to the west. Running east, the path will create a greenbelt linking Ko 'Olina, Kapolei West, Kapolei Harborside, the City of Kapolei, Kalaeloa, the Villages of Kapolei, 'Ewa Plantation Villages, 'Ewa by Gentry, and West Loch to Rainbow Marina near Aloha Stadium and to the Waipahū Cultural Garden Park.

TABLE 2.2: 'EWA OPEN SPACE AND GREENWAYS NETWORK

**Mountain and Agricultural Areas**

Wai'anae Mountains Conservation District  
 (Including the State's Honouliuli Forest Reserve)  
 Pu'u Makakilo  
 Pu'u Pālailai  
 Agricultural Lands *mauka* of H-1 and Wai'anae side of Kunia Road  
 Agricultural Lands in the Pearl Harbor Naval Munitions Command ESQD arc

**Natural Gulches and Drainageways**

Honouliuli Stream  
 Kalo'i Gulch  
 Makalapa Gulch  
 Makakilo Gulch  
 Awanui Gulch  
 Pālailai Gulch  
 Makaīwa Gulch  
 Keone'ō'io Gulch  
 Limaloa Gulch

**Shoreline Areas**

'Ewa Shoreline Park (Lateral Public Access/Easement from Ko 'Olina to Pearl Harbor)  
 Wetlands and Wildlife Habitats  
 Honouliuli National Wildlife Refuge  
 Apoka'a Ponds  
 Batis Salt Marsh at Hoakalei  
 Kahe Point Beach Park  
 Tracks Beach Park  
 Ko 'Olina Beach Parks (2)  
 Barbers Point Beach Park  
 One'ula Beach Park  
 'Ewa Beach Park  
 Iroquois Point Beach Park (military)  
 West Loch Shoreline Park



**Regional and District Parks**

Ocean Pointe District Park  
 Kalaeloa Regional Park  
 ‘Ewa Mahikō District Park  
 East Kapolei District Park (planned)  
 Kapolei Regional Park  
 Makaiwa Hills District Park (planned)

**Golf Courses**

Ko ‘Olina Golf Club  
 Kapolei West Golf Course (planned)  
 Kapolei Golf Course  
 ‘Ewa Villages Golf Course  
 Coral Creek Golf Course  
 Barbers Point Golf Course (military)  
 Hoakalei Country Club  
 Hawai‘i Prince Golf Club  
 ‘Ewa Beach Golf Club  
 West Loch Golf Course

**Greenway Corridors**

Farrington Highway  
 Kapolei Parkway  
 Pearl Harbor Historic Trail / Historic OR&L Railway  
 Kualaka‘i Parkway  
 Fort Weaver Road  
 Ali‘inui Drive (Ko ‘Olina)  
 Kealanui Avenue (Villages of Kapolei)  
 Kama‘aha Avenue (Villages of Kapolei)  
 ‘A‘awa Drive (West Loch Fairways)  
 Keone‘ula Boulevard (Ocean Pointe)

See Exhibits 3.1 and 3.2 for locations of Pu‘u, parks, wetlands and wildlife habitats.  
 See Exhibit 4.3 for locations of major natural gulches and drainageways.

**2.2.4 KALAELOA REGIONAL PARK**

Kalaeloa Regional Park will provide needed open space, recreational opportunities, and access to the beaches and ocean.

Kalaeloa Regional Park is envisioned as a major nucleus of community activity, attracting visitors from all of O‘ahu. To be developed on surplus lands at Kalaeloa, it will feature a regional park with sports and recreation facilities. Taking advantage of its extensive land resources, cultural sites, and spectacular ocean setting, it will offer extensive community-oriented recreation facilities, and public facilities. Ocean recreation areas at Kalaeloa will feature coastal lands providing a setting for ocean sports, beach activities, picnicking and family camping.



**2.2.5 SECONDARY URBAN CENTER**

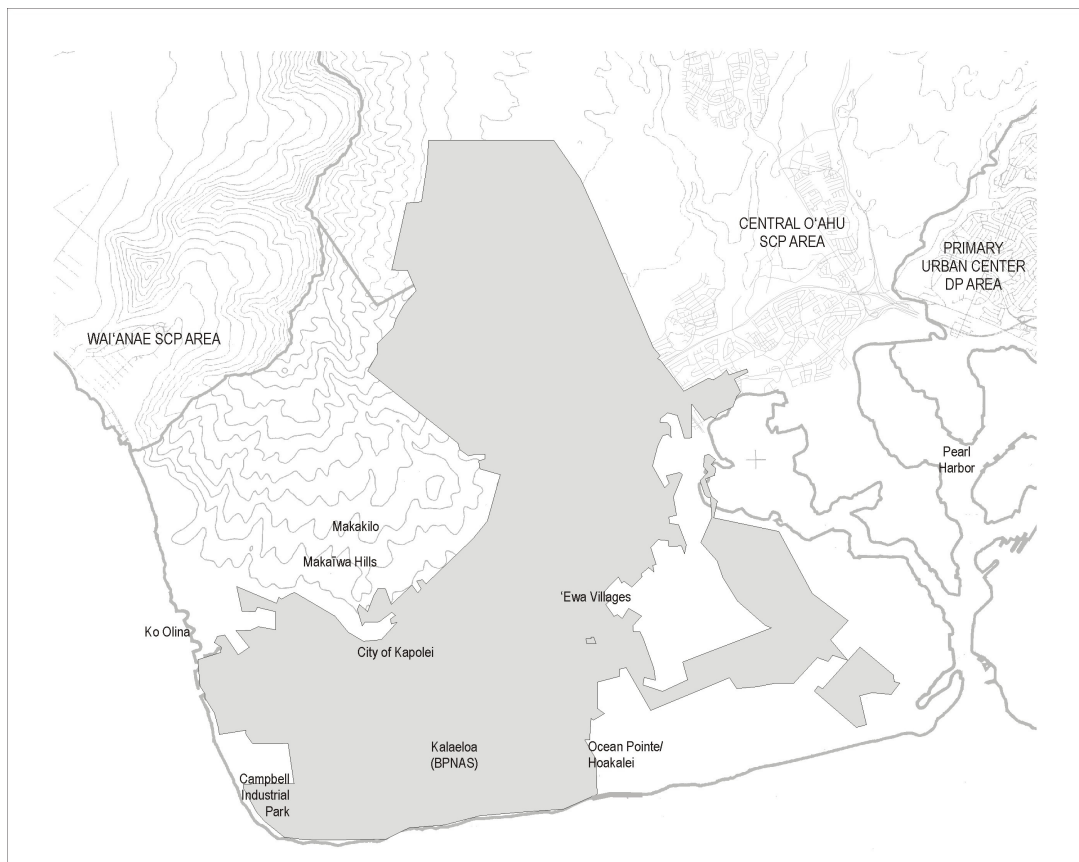
The Secondary Urban Center (See Exhibit 1.1) will provide a wide range of employment opportunities by 2035 and consists of:

- A major office, retail, and residential center at the City of Kapolei (projected to have over 17,000 private nonconstruction jobs by 2035);
- A Secondary Civic Center with main headquarters for some State and City agencies (projected to have 2,600 government jobs);
- A major resort destination area at Ko ‘Olina (projected to have 5,500 hotel and resort condominium units);
- A marina resort/mixed use area at Ocean Pointe (projected to have 950 visitor units);
- A deep draft harbor at Kalaeloa Barbers Point, a major industrial center at Campbell Industrial Park, and civilian reuse of Kalaeloa compatible with the rest of ‘Ewa (projected to collectively provide almost 21,000 jobs); and
- The University of Hawai‘i West O‘ahu (projected to have 1,040 faculty and staff and 7,600 students).

See the ‘Ewa Urban Land Use Map in Appendix A.

Almost the entire ‘Ewa Development Plan area (as shown in Exhibit 2.2) has been approved as an Enterprise Zone by the Honolulu City Council.

**Exhibit 2.2**  
**‘Ewa Enterprise Zone**





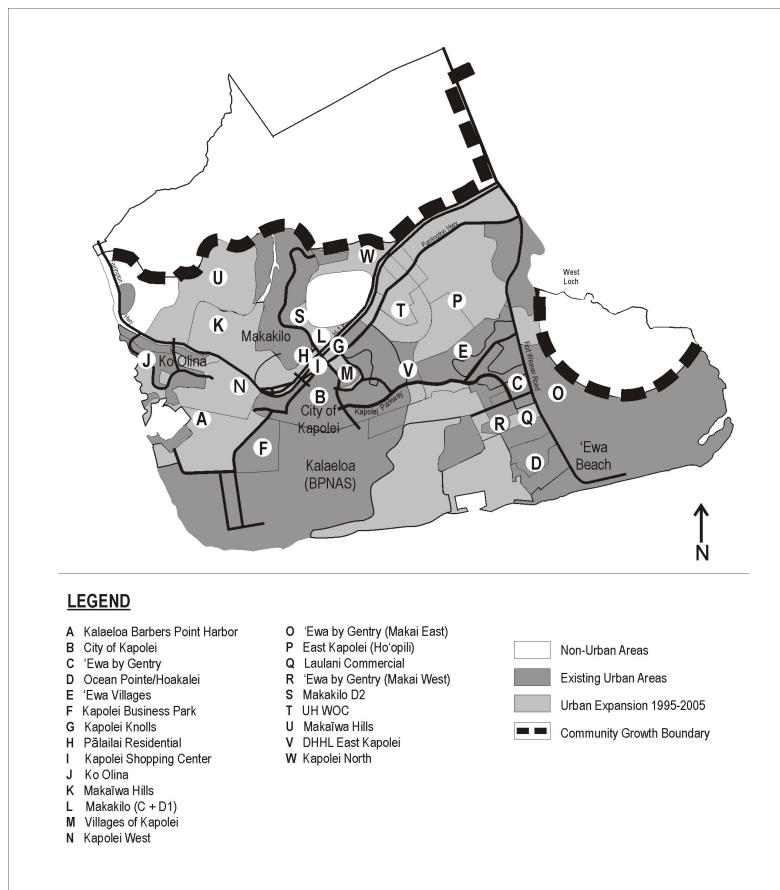
Under enabling legislation approved by the City Council in 1995 (Resolution 95-292) and in 2002 (Resolution 02-227), qualifying businesses receive a package of incentives including rebates on City property taxes for two years, and waiver of certain county fees for seven years. In addition, under State law (Chapter 209E, Hawai‘i Revised Statutes), the businesses may receive exemptions from State excise taxes for seven years, a decreasing State income tax credit for seven years, and a State income tax credit for unemployment insurance premiums.

## 2.2.6 MASTER PLANNED RESIDENTIAL COMMUNITIES

A network of master planned residential communities will provide a wide variety of housing and accommodate the need for affordable housing. Master plans will guide new developments in the City of Kapolei, East Kapolei (DHHL East Kapolei, UH West O‘ahu, Ho‘opili), ‘Ewa by Gentry, Ocean Pointe/Hoakalei, Ko ‘Olina, Makaīwa Hills, Kapolei West (previously part of Ko ‘Olina), and the Villages of Kapolei; the rehabilitation of existing structures and development of new housing in ‘Ewa Villages; and the redevelopment of Kalaeloa. (See Exhibit 2.3 for locations.)

These master plans will incorporate planning principles and guidelines to preserve historic and cultural values, establish open space and greenway networks, and create well-designed, livable communities. Such communities should be designed with an identifiable, distinct and easily accessible main street, town center or neighborhood center which may include a mixture of residential and small scale community related commercial development.

**Exhibit 2.3**  
**Existing and New Master Planned Communities**





### 2.2.7 COMMUNITIES DESIGNED TO SUPPORT NONAUTOMOTIVE TRAVEL

The master planned residential communities will be designed or redeveloped to support **pedestrian and bike use** within the community and **transit use** for trips both within and outside of the community.

Connectivity will be established within subdivisions by use of block and street standards and between subdivisions by establishing and implementing a 1/4 mile collector/ connector master road plan, where permitted by terrain.

An east-west **Rapid Transit Corridor** will link Kapolei West, the City of Kapolei, the University of Hawai‘i West O‘ahu campus, Waipahū, Leeward Community College, and the Primary Urban Center. Medium density residential development will be built along the corridor within walking distance of transit stops.

Medium density residential and commercial mixed-use development will be developed at eight **transit nodes** whose general locations are indicated on the Public Facilities Map in Appendix A. Transit nodes are meant to be located at activity focal points, which would serve as natural points for transferring from one transportation mode to another.

The first segment of the rapid transit system will start near the proposed Kroc Center on Kualaka‘i Parkway and continue on to Waipahū along Kualaka‘i Parkway and Farrington Highway. Sufficient **right-of-way** will be reserved for the establishment, when needed in the future, of an elevated rapid transit system along a route which would extend the system through Kalaeloa to the City of Kapolei, ending near the intersection of Kapolei Parkway and the planned extension of Hānu‘a Street. Such a system will require a 28 to 32 foot right of way along the route and a 75-foot right of way at transit station sites (at the transit nodes).

### 2.2.8 CONSERVATION OF NATURAL RESOURCES

‘Ewa Natural Resources, including potable water, coastal water quality, and wetlands and other wildlife habitat, will be conserved by:

- Efficiently using all water supplies through conservation measures and distribution system leak repair;
- Developing a dual water distribution system with potable water for drinking and other clean water uses and nonpotable water for irrigation and industrial use;
- Designing the regional drainage and wastewater treatment system to minimize nonpoint source pollution of the ocean and Pearl Harbor;
- Protecting valuable habitats for endangered water birds located in Batis Salt Marsh at Hoakalei and in the West Loch of Pearl Harbor and for endangered plants located within Kalaeloa (formerly Barbers Point Naval Air Station) and elsewhere;
- Protecting open space outside the Community Growth Boundary from development;
- Requiring surveys to identify endangered species habitat and requiring appropriate mitigations for adverse impacts on endangered species in new development areas;
- Protecting endangered fish and invertebrates present in sinkholes such as Ordy Pond near the east edge of Kalaeloa; and
- Cleaning up contaminated areas that pose hazards to soil and water quality, especially in the Kalaeloa area.

See Exhibit 3.2 in Chapter 3 for a mapping of key natural resources.



## 2.2.9 PRESERVATION AND ENHANCEMENT OF HISTORIC AND CULTURAL RESOURCES

‘Ewa’s Historic and Cultural Resources will be preserved and enhanced by:

- Preserving significant historic features from the plantation era and earlier periods, including:
  - The ‘Ewa Plantation Villages and other remnants of the plantation era;
  - The OR&L right-of-way and railway stock;
  - The Honouliuli Internment Camp;
  - The ‘Ewa Marine Corps Air Station;
  - Pu‘u O Kapolei/Fort Barrette;
  - Pu‘u Makakilo;
  - Lanikūhonua,
  - Native Hawaiian cultural and archaeological sites;
- Retaining visual landmarks and significant public views and vistas, including:
  - Distant vistas of the shoreline from the H-1 Freeway above the ‘Ewa Plain;
  - Views of the ocean from Farrington Highway between Kahe Point and the boundary of the Wai‘anae Development Plan Area;
  - Views of the Wai‘anae Range from H-1 Freeway between Kunia Road and Kalo‘i Gulch and from Kunia Road;
  - Views of nā pu‘u at Kapolei, Pālailai, and Makakilo;
  - *Mauka* and *makai* views;
  - Views of central Honolulu and Diamond Head, particularly from Pu‘u O Kapolei and Pu‘u Makakilo; and by
- Identifying and protecting sites that are important to Native Hawaiian cultural practices.

## 2.2.10 PLANNED REGIONAL DEVELOPMENT

Planned development of ‘Ewa will support the City of Kapolei’s development and conserve scarce infrastructure dollars. It will be characterized by:

- **Increased land supply** to support economic development and job creation and to accommodate major residential growth with an emphasis on providing affordable housing and a diversity of housing types;
- **Moderate growth of commercial centers in Urban Fringe Areas** to primarily serve the needs of the surrounding residential communities;
- **Approval of Residential and Commercial development** that supports development of the Secondary Urban Center (See Table 2.1);
- **Adequate Facilities Requirements** adopted as a condition for zoning approval to ensure that infrastructure will be adequate to meet the needs caused by expected development;
- **Coordinated Public-Private Infrastructure and Project Development** that supports the directed growth strategy of the General Plan. Examples of project development include construction of the State and City offices in the Kapolei Civic Center, the Department of Hawaiian Home Lands’ State headquarters building Hale Kalaniana‘ole, and development of the University of Hawai‘i West O‘ahu Campus; and
- **Adequate Funding for Infrastructure** through methods such as Tax Increment Financing (TIF) and Community Facilities District (CFD) which provide funding for infrastructure concurrently with, or in advance of, residential and/or commercial development.

Table 2.1 shows the approximate land area and projected number of housing units of projects shown in Exhibit 2.3 and on the Land Use Map and Phasing Map in Appendix A. The projects are categorized by status of land use approvals (fully entitled, need zoning, or need State Urban Land Use District designation and zoning). The estimates of land areas involved and densities for proposed projects are based on proposals and historic behavior.



If the proposed project is approved, the actual acreages and densities as well as project design requirements will be determined by Council as part of the approval of the project zone change application.

The capacity for development of 48,100 units in Table 2.1 represents only the **Potential Supply of Housing Units** based upon projects previously approved or proposed. It is important to emphasize that these projects are **not** necessarily expected to be completed within the next 25 years.

It is expected that housing development activities at many projects would continue for ten years or more after the initial zoning approval. The number of units actually produced and sold, and the timing of their production, will depend upon market forces. Absorption of new units is projected to be almost 26,500 units between 2009 and 2035, which would use only around 55 percent of potential supply identified in Table 2.2.



**CHAPTER 3. LAND USE POLICIES AND GUIDELINES**

The vision for development of ‘Ewa described in the preceding chapter will be implemented through application of land use general policies, and guidelines. These policies and guidelines are not regulations, but provide guidance that decision makers and administrators should follow, where sensible, in approving projects and revising rules, regulations, and best practices standards.

- 3.1 Open Space Preservation and Development
- 3.2 Regional Parks and Recreation Complexes
- 3.3 Community-Based Parks
- 3.4 Historic and Cultural Resources
- 3.5 Natural Resources
- 3.6 City of Kapolei
- 3.7 ‘Ewa Plantation Villages
- 3.8 Ocean Pointe/Hoakalei
- 3.9 Existing and Planned Residential Communities
- 3.10 Planned Commercial Retail Centers
- 3.11 Ko ‘Olina Resort
- 3.12 Industrial Centers
- 3.13 Kalaeloa
- 3.14 Pearl Harbor Naval Base (West Loch)
- 3.15 University of Hawai‘i West O‘ahu

**3.1 OPEN SPACE PRESERVATION AND DEVELOPMENT**

The open space system consists of areas in active use, as well as passive areas. Active areas include parks, golf courses and agricultural fields. Passive areas include lands in the State Conservation District, fallow land in the State Agriculture District, drainage and utility corridors. Shoreline areas may be either active or passive.

**3.1.1 GENERAL POLICIES**

Use open space to:

- Provide long-range protection for diversified agriculture on lands outside the Community Growth Boundary;
- Protect scenic views and natural, cultural, and historic resources;
- Provide recreation;
- Define the boundaries of communities, by;
  - Using the large expanses of open space beyond the Community Growth Boundary to provide the basic definition of the regional urban pattern, and
  - Using the open space system within the Community Growth Boundary to visually distinguish and physically separate individual communities, neighborhoods, and land use areas;
- Provide a fire safety buffer where developed areas border “wildlands” either in preservation areas within the Community Growth Boundary or in the State Conservation District;
- Promote the accessibility of shoreline and mountain areas (as required by City Ordinance);
- Preserve natural gulches and ravines as drainageways and stormwater retention areas; and
- Create major pedestrian and bikeway linkages between communities, such as the OR&L / Pearl Harbor Historic Trail, through a network of greenways along transportation and utility corridors and drainageways connecting major open space areas.



### 3.1.2 RELATION TO OPEN SPACE MAP

The following areas shown on the Open Space Map in Appendix A are components of the regional open space system:

**Mountain and Agricultural Areas** - These are the areas outside of the Community Growth Boundary, including areas within the State Conservation District.

**Natural Gulches and Drainageways** - Within the Community Growth Boundary, the major gulches, including the Kalo'i Gulch drainage channel, are shown in preservation uses. (See the listing in Table 2.2.)

**Shoreline Areas** - The proposed lateral public easement/access along the shoreline is indicated by a dotted line. Nearshore, coastal-dependent uses and features such as beach parks and wetlands are indicated as parks and preservation areas, respectively.

**Parks** - Only island-wide and regional district parks are shown. Community and neighborhood parks are part of the open space system, but they are generally too small to display on a regional map, and their location is determined more by community design considerations (see Section 3.3) than by their relationship to the regional open space network.

**Golf Courses** - All golf courses are shown, whether public or private-owned, since their visual contribution to the open space system is the same.

**Greenways or Open Space Corridors** - These corridors are indicated on the map following certain public right-of-ways that are extensive enough to make a significant contribution to the regional open space network as a linear connector.

### 3.1.3 GUIDELINES

The following guidelines suggest how the general policies for Open Space Preservation and Development should be implemented:

#### 3.1.3.1 Mountain Areas

- Acquire and maintain a public campground and support public access to hiking trails in the area *mauka* of the Community Growth Boundary on the slopes of the Wai'anae Range.
- Acquire and maintain public access, including vehicular access from Makakilo Drive, to trail heads and public campgrounds.
- Provide access to mountain trails in the Pālehua Ridge area via Pālehua Road as part of the Makaīwa Hills project.
- Maintain the forest at higher elevations, in the State Conservation District. Plan utility corridors and other uses to avoid disturbance to areas with high concentrations of native species.
- Identify endangered species habitats and other important ecological zones and protect them from threats such as fire, weeds, feral animals and human activity.
- Identify and protect areas that are important to Native Hawaiian cultural practices.



**3.1.3.2 Natural Gulches and Drainageways**

- Preserve the natural gulches on the slopes of the Wai‘anae Range foothills within the Community Growth Boundary as part of the open space system.
- Integrate planned improvements to the ‘Ewa drainage systems into the regional open space network by emphasizing the use of retention basins and recreational access in the design approach. (See Chapter 4, Section 4.6.)
- View drainageways and utility corridors as opportunities to link major open spaces with pedestrian and bike paths along open corridors in order to create the regional open space network.
- Where practical, retain drainageways as natural or man-made vegetated channels rather than concrete channels.

**3.1.3.3 Shoreline Area**

- Provide public pedestrian access to the shoreline at intervals of approximately 1/4 mile, except where access is restricted by the military for security reasons. To make this access usable by the public, provide adequate parking.
- Where a lateral public easement along the shoreline is available or planned, allow the distance between access points to be increased. However, the intervals should generally not exceed one mile and vehicular parking spaces and limited facilities for waste disposal and potable water supply should be available at the access points.
- Maintain and enhance near-shore wetlands and mangroves, where necessary, as wildlife habitats.
- Identify and protect areas that are important to Native Hawaiian cultural practices.
- Coordinate private and public landowners’ efforts to create continuous shoreline easements to ensure the maximum feasible degree of lateral public access.
- Provide lateral shoreline access along the Hoakalei coastline and a pathway providing continuous public access around the Hoakalei Marina.
- Provide, at a minimum, a 60-foot setback along the shoreline, and, where possible, expand the setback to 150 feet where justified, based on historic or adopted projections of shoreline erosion rates.
- Analyze the possible impact of sea level rise for new public and private projects in shoreline areas and incorporate, where appropriate and feasible, measures to reduce risks and increase resiliency to impacts of sea level rise.

**3.1.3.4 Agricultural Areas**

- Permit facilities necessary to support intensive cultivation of arable agricultural lands.
- Permit facilities to support limited outdoor recreation use, such as camping, horseback riding, and hiking, in areas where agricultural use is not feasible.
- Permit residential use only to the extent that it is accessory to the agricultural use. Where several dwellings are planned as part of an agricultural use, they should be sited and clustered to avoid the use of more productive agricultural lands and to reduce infrastructure costs.
- Design and locate buildings and other facilities that are accessory to an agricultural operation to minimize impact on nearby urban areas, arterial roads, and major collector streets.

**3.1.3.5 Parks**

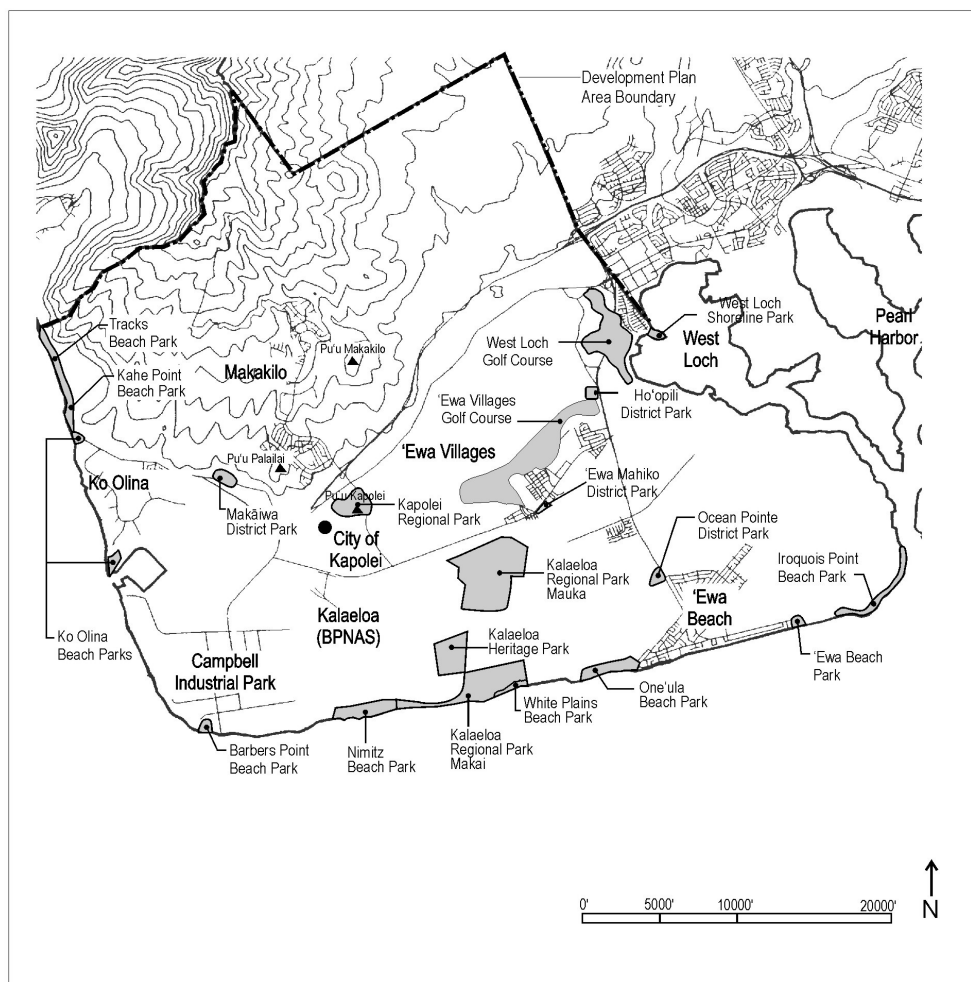
- Develop a major regional park at Kalaeloa that provides beach-oriented recreation and support facilities near the shoreline and active recreation facilities in *mauka* areas, and preserves significant cultural



resource areas and wildlife habitats such as wetlands and endangered plant colonies. (See Exhibit 3.1: Parks in the 'Ewa Development Plan Area.)

- Locate other beach and shoreline parks throughout the 'Ewa coastline. A beach park at the south end of the Ko 'Olina shoreline has been built, and it and a shoreline park at the Kahe end of Ko 'Olina are to be dedicated to the City at some point in the future. One'ula Beach Park will be expanded by 9.4 acres as part of the Ocean Pointe/Hoakalei project.
- Maintain prominent landforms at Pu'u O Kapolei and Pu'u Pālailai as natural visual features and regional landmarks.

**Exhibit 3.1**  
**Parks in the 'Ewa Development Plan Area**



### 3.1.3.6 Golf Courses

- Locate and design golf courses to optimize their function as drainage retention areas.
- Consider the impact on existing and proposed regional trails, paths and bike routes in designing new golf courses. Where necessary for these trails, paths and bike routes, provide safe corridors by or through the course.



- Design golf courses to provide view amenities for adjacent urban areas, including public rights-of-way.
- When screening is necessary for safety reasons, use landscape treatment, setbacks, and modifications to the course layout rather than fencing or solid barriers, where feasible.

#### **3.1.3.7 Wildlands - Urban Fire Hazard Setbacks**

- As determined appropriate by the Honolulu fire department, require residential or commercial developments that are adjacent either to preservation areas within the Community Growth Boundary or to lands within the State Conservation District to provide a setback to reduce the risk of fire spreading from the “wildlands” to the developed area. Typically, such a setback would be 20 to 30 feet wide and landscaped with low growth, low-burn plantings.

#### **3.1.3.8 Greenways and Open Space Corridors**

- Provide additional connectivity for bikers and pedestrians by developing the Pearl Harbor Historic Trail, which will extend for about 18.5 miles from Rainbow Marina near ‘Aiea to Nānākuli. The Trail, running west on the OR&L right-of-way across the ‘Ewa plain, will allow bikers and pedestrians to connect to the Trail from other access points including City parks, through the addition of scenic shared use paths in ‘Ewa and Ko ‘Olina to travel as far as Nānākuli to the west. Running east, the Trail will follow a greenbelt linking a network of shoreline parks stretching from West Loch to Rainbow Marina near Aloha Stadium. Establish the bikeway even in those sections where the railroad itself is not operational.
- Provide sufficient easement width for the major trunk lines and transmission and distribution lines for utility systems, when their alignment is not within a road right-of-way, to permit the growth of landscaping within and adjacent to the easement, consistent with all applicable operations, maintenance, and safety requirements.
- When overhead or underground transmission and distribution lines are located within or adjacent to a road right-of-way, provide sufficient width to permit the growth of landscaping adjacent to the transmission line, consistent with all applicable operations, maintenance, and safety requirements. The purpose of the landscaping is to divert attention from the overhead lines and, preferably, obscure views of the overhead lines from the travel way and adjacent residential areas. Place new transmission lines underground where possible under criteria specified in State law.
- Permit the use of utility easements for pedestrian and bicycle routes, consistent with all applicable operations, maintenance, and safety requirements.
- Design the rights-of-way for major and minor arterials as landscaped parkways or greenways, complete with a landscaped median strip, landscaped sidewalks, and bikeways. Major arterials should have separate bike paths, and minor arterials should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for minor arterials is 100 feet wide.

### **3.2. REGIONAL PARKS AND RECREATION COMPLEXES**

Sections 3.2.1 and 3.2.2 present general policies, and guidelines for development of regional parks and recreation complexes.

Regional parks and recreation complexes include the Kalaeloa Regional Park proposed for surplus lands at the former Barbers Point Naval Air Station, Kapolei Regional Park, various beach and shoreline parks, and public and private golf courses.



The City and County and the U.S. Department of the Interior are negotiating the conveyance of the lands for Kalaeloa Regional Park to the City. In the meantime, the department of parks and recreation (DPR) is operating a beach camping area at Kalaeloa under a licensing agreement with the Navy. DPR also operates two Kalaeloa baseball parks on land recently conveyed from the Navy to Ford Island Properties, Inc. (FIP), and is negotiating an agreement with FIP to continue operating the parks. The Navy operates the Nimitz and White Sands beach parks at Kalaeloa which are open to the public. (The Navy intends to retain the two beach parks.)

Existing City beach and shoreline parks are located at Tracks, Kahe Point, Barbers Point, One‘ula, ‘Ewa Beach, and West Loch.

Two beach parks at either end of the Ko ‘Olina shoreline have been built and will be turned over to the City at some point in the future as required by ordinance. The larger park at the northern end of the resort provides for picnicking and other passive recreation. A park at the southern end provides direct access to one of the four swimming lagoons. A boat-launching ramp, which is available for public use, is being relocated to the eastern end of the Ko ‘Olina marina.

‘Ewa has nine golf courses. In addition, one more course is planned for the Kapolei West development. (See Table 2.2)

The City’s courses include the West Loch and ‘Ewa Villages golf courses. The ‘Ewa Village golf course also provides flood protection and stormwater detention for ‘Ewa Villages.

Privately owned golf courses include the Hawai‘i Prince Golf Club, ‘Ewa Beach Golf Club, Hoakalei Country Club, Coral Creek Golf Course, Kapolei Golf Course, and Ko ‘Olina Golf Club. The U.S. military operates a golf course at Kalaeloa. The Coral Creek Golf Course opened in March 1999. The Hoakalei Country Club opened for play in 2008. An 18-hole golf course is planned as part of the proposed Kapolei West project. Plans for golf courses at Makakilo and Makaīwa Hills have been cancelled. Sports and recreation complexes designed to attract visitors from throughout the region and the rest of O‘ahu have been proposed for a number of areas in ‘Ewa.

### 3.2.1 GENERAL POLICIES

- Consider using public-private partnerships to build, and maintain new park and recreation complexes in order to sustain economic development.
- Design the built environment to avoid adverse impacts on natural resources or processes in the coastal zone or any other environmentally sensitive area.

#### Regional Parks

- Develop a new Kalaeloa Regional Park which will feature a large shoreline park with beach recreation and support facilities; a wide range of activity areas including athletic fields in the *mauka* lands; and preserves for historic and cultural resources, wildlife habitats, wetlands, and endangered plant colonies. The Park will encompass mostly undeveloped lands, bordered by the shoreline on the south, the airfield and developed portions of the facility to the north and west, and the existing military golf course and the Hoakalei Country Club golf course to the east. Key elements of the Park are as follows:
  - The Park will include and preserve two wetland areas and an endangered plant preserve that have been recommended for preservation by the U.S. Fish and Wildlife Service.
  - Proposed uses for the *mauka* areas include a Hawaiian cultural park, continuation of the existing riding stable, cabin and tent camping, archery, and various other passive and active recreation uses.



- The Park will also provide access to a continuous shoreline easement extending from the Ocean Pointe/Hoakalei development to Ko ‘Olina.
- Complete development of Kapolei Regional Park to provide diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei. The 73-acre park includes the Pu‘u O Kapolei and serves as a defining limit for the northeastern edge of the City of Kapolei and as a visual gateway to the City. The park provides diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei.
- Develop Pu‘u Pālailai below Makakilo as a private nature park providing hikers excellent views of the ‘Ewa Plain and distant views of downtown Honolulu and Diamond Head.

**Golf Courses**

- Use golf courses, where appropriate, to provide protection for open space, and help reduce flooding and nonpoint pollution by helping retain stormwaters.

**Recreation Complexes**

- Design recreation complexes to be compatible with surrounding land uses and environmental features.

**3.2.2 GUIDELINES**

The following guidelines suggest how the general policies for Regional Parks and Recreation Complexes should be implemented.

**3.2.2.1 Appropriate Scale and Siting**

- Use architectural elements and siting to heighten the visibility of major recreation events areas as they are approached from principal travel corridors.

**3.2.2.2 Environmental Compatibility**

- Locate and operate uses that generate high noise levels in a way that keeps noise to an acceptable level in existing and planned residential areas.
- To retain a sense of place, incorporate natural features of the site and use landscape materials that are indigenous to the area in the design of recreation areas where feasible.
- Use xeriscaping (the use of native landscape materials with low water demand), non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

**3.2.2.3 Community Integration**

- Although the design of recreational attractions may have a distinct identity and entry, link these destinations with surrounding areas using connecting roadways, bikeways, walkways, landscape features or architectural design.

**3.2.2.4 Islandwide and Regional Parks**

- Develop a major park within Kalaeloa that provides beach-oriented recreation and support facilities near the shoreline, other active recreation facilities in *mauka* areas, and preserves for cultural and archaeological resources and for wildlife habitats such as wetlands and endangered plant colonies.



- Provide facilities for tent and cabin camping within the new park at Kalaeloa in the major recreational area that includes a beach camping area.
- Develop additional beach and shoreline parks along the 'Ewa coastline. Two existing beach parks at either end of the Ko 'Olina shoreline will be dedicated to the City and County. One'ula Beach Park will be expanded as part of the Ocean Pointe/ Hoakalei project.
- Maintain prominent landforms at Pu'u O Kapolei and Pu'u Pālailai as natural visual features and regional landmarks. (See the Parks Map, Exhibit 3.1)

### 3.2.2.5 Sports and Recreation Complexes

#### Definition of Use Areas

- Separate uses that attract a high number of people for events as much as possible from residential areas and wildlife habitats.
- Provide amenities and service facilities to accommodate "tailgate" picnics, as well as nearby picnic tables and outdoor grills in parking areas for sporting events.

#### Transportation Facilities

- Locate bus loading areas, shelters and bicycle parking facilities as close as possible to entry gates for special events areas.
- Locate bus stops at all principal activity areas.

#### Views

- Locate and design facilities for special events to be readily visible and identifiable from the principal transportation corridors that lead to them.
- Establish the visual identity of the complex through distinctive architecture, landscaping, or natural setting.

#### Landscape Treatment

- Minimize the visibility of perimeter fencing, loading areas, parking lots and garages and other utilitarian elements through plantings or other appropriate visual screens along roadway frontages.
- In large parking lots, use canopy trees to provide shade. Use special paving or pavement markings to indicate pedestrian routes to destinations and differentiate sections of the parking area.

#### Natural Environment

- Retain, protect, and incorporate wetland and other wildlife habitat areas as passive recreational resources.

### 3.2.2.6 Siting

- Island-wide and regional parks and golf courses are shown on the Open Space Map and the Public Facilities Maps in Appendix A.
- Change in the location of an island-wide park or a golf course shall require a City review and approval process, such as the Plan Review Use process, which provides adequate public notice and input, complete technical analysis of the project, and approval by the City Council. Approval of changes in size and configuration may be done administratively.
- Regional sports and recreation complexes may be located in Kalaeloa, on the fringes of the City of Kapolei, and in areas designated for commercial or park use, subject to a City review and approval process which provides public review and complete analysis.



### **3.3 COMMUNITY-BASED PARKS**

Sections 3.3.1 and 3.3.2 provide general policies and guidelines for community-based parks and recreation areas.

Community-based parks (and associated recommended size and service radius) include mini-parks (no size specified and 1/2 mile), neighborhood parks (5 acres and 1/2 mile), community parks (10 acres and one mile), and district parks (20 acres and two miles).

#### **3.3.1 GENERAL POLICIES**

- Provide adequate parks to meet residents’ recreational needs. The Department of Parks and Recreation (DPR) standard for community-based parks is that a minimum of two acres of community-based parks should be provided per 1,000 residents, with one acre per thousand needed for district parks and one acre needed for community parks, neighborhood parks, and mini-parks. (Even if these standards are met, there may still be unmet park needs due to demographic or other community conditions.) The need for community-based parks can be met either through public parks operated by the City and County or private community parks and recreation centers operated by home owner associations.
  - Currently, ‘Ewa has significantly less district park acreage than the DPR standard indicates is needed for its existing population. To meet the DPR standard, ‘Ewa’s population of 101,397 in 2010 needed 203 acres with 101 acres needed in district parks. The combined total of ‘Ewa public and private community-based parks in 2008 was 140 acres, with only one 25-acre district park, ‘Ewa Mahikō.
  - ‘Ewa’s population is projected to grow to 164,500 by 2035. Based on the DPR standards, 189 more acres of community-based parks should be added to the existing park acreage to meet the needs of the projected 2035 ‘Ewa population, including 140 acres at district parks.
  - As shown in Table 3.1, land has been set aside for development of future community-based parks as part of master-planned communities throughout ‘Ewa. There are plans to develop 350 acres of new parks, including 162 in district parks.
- Protect and expand access to recreational resources in the mountains, at the shoreline, and in the ocean. Trails to and through natural areas of the gulches and mountains are an important public recreational asset. Some areas are difficult to access because of landowner restrictions.
- Support efforts to expand access to mountain and gulch trails in areas where urban development will not occur.



**Table 3.1: ‘Ewa Public and Private Parks and Golf Courses**

<b>NAME AND TYPE OF PARK</b>	<b>ACRES</b>
<b>Regional Parks</b>	
Kalaeloa Heritage Park <sup>(1)</sup>	96.2
Kalaeloa Regional Park <sup>(2)</sup>	409.5
Kapolei Regional Park (1972)	69.4
<b>Regional Park Total</b>	<b>575.1</b>
<b>Community Based Parks</b>	
<b>District Parks</b>	
Ocean Pointe District Park <sup>(3)</sup>	20.0
‘Ewa Mahikō District Park (1998)	25.0
Ho‘opili District Park <sup>(4)</sup>	25.0
Kalaeloa Parks (OS-10,11, & 12) <sup>(4)</sup>	70.0
Makaīwa Hills District Park <sup>(5)</sup>	20.0
<b>District Park Total</b>	<b>160.0</b>
<b>Community Parks</b>	
Asing Community Park (1996)	12.8
DHHL East Kapolei II <sup>(3)</sup>	11.0
‘Ewa Beach Community Park (1961)	13.3
Geiger Community Park (1996)	10.0
Kamokila Community Park (1977)	5.9
Kapolei Community Park (1999)	12.0
Kapolei West Community Park <sup>(3)</sup>	12.3
Ko ‘Olina Community Park <sup>(3)</sup>	11.0
Laulani Community Park <sup>(3)</sup>	16.4
Makaīwa Hills Community Park <sup>(3)</sup>	10.0
Makakilo Community Park (1977)	8.5
<b>Community Park Total</b>	<b>123.1</b>
<b>Neighborhood Parks</b>	
DHHL East Kapolei II Mauka & Makai <sup>(3)</sup>	10.5
East Kapolei UH WO I & II <sup>(3)</sup>	11.5
‘Ewa by Gentry Area 19C <sup>(3)</sup>	9.2
Ho‘opili Mini-Neighborhood Parks <sup>(4)</sup>	35.0
Iroquois Point Neighborhood Park <sup>(3)</sup>	12.1
Kalaeloa Downtown Neighborhood Park <sup>(2)</sup>	7.0
Kapolei Neighborhood Park <sup>(3)</sup>	6.0
Kapolei West Neighborhood Park <sup>(3)</sup>	5.0
Ko ‘Olina Neighborhood Park <sup>(3)</sup>	5.1
Makaīwa Hills Neighborhood Parks I and II <sup>(3)</sup>	11.5
Makakilo Neighborhood Park (1968)	4.0
Maukalani Neighborhood Park (1976)	4.4
Pālailai Neighborhood Park (1999)	5.0
Pu‘uloa Neighborhood Park (1961)	4.3
<b>Neighborhood Park Total</b>	<b>130.6</b>
<b>Private Parks and Recreation Centers</b>	
‘Ewa by Gentry (1989-2005)	19.0
Ocean Pointe (2001-2004)	4.3
Kroc Center <sup>(4)</sup>	15.0
Villages of Kapolei (1995-1999)	10.3
Makakilo (1998)	0.4
Makaīwa Hills <sup>(4)</sup>	15.0
Kapolei West <sup>(4)</sup>	12.0
Ko ‘Olina (2005)	1.0
<b>Private Parks Total</b>	<b>76.9</b>
<b>Community Based Parks Total</b>	<b>490.6</b>



**Table 3.1: ‘Ewa Public and Private Parks and Golf Courses (Continued)**

NAME AND TYPE OF PARK	ACRES
<b>Beach Parks</b>	
Barbers Point Beach Park (1964)	7.4
‘Ewa Beach Park (1951)	4.9
Iroquois Point Beach Park (military)	2.0
Kahe Point Beach Park (1954)	4.5
Ko ‘Olina Beach Park (1993) <sup>(6)</sup>	9.0
Makaīwa Beach Park (1993) <sup>(6)</sup>	18.0
Nimitz Beach Park (military)	21.3
HCDA Nimitz Expansion Shoreline Access <sup>(7)</sup>	2.0
Kalaeloa Regional Park Nimitz Expansion <sup>(2)</sup>	4.2
One‘ula Beach Park (1969)	30.0
Tracks Beach Park (1988)	14.3
West Loch Shoreline Park (1991)	5.8
White Plains Beach Park (military)	15.4
<b>Beach Park Total</b>	<b>138.7</b>
<b>Public &amp; Private Parks Total</b>	<b>1,204.5</b>
<b>Golf Courses</b>	
Barbers Point Golf Course (military)	145.0
Coral Creek Golf Course	195.0
‘Ewa Beach Golf Club	130.0
‘Ewa Villages Golf Course <sup>(8)</sup>	235.0
Hawai‘i Prince Golf Club	270.0
Hoakalei Country Club (Ocean Pointe)	189.0
Kapolei Golf Course	190.7
Kapolei West Golf Course <sup>(4)</sup>	203.0
Ko ‘Olina Golf Club	170.0
West Loch Golf Course <sup>(8)</sup>	187.0
<b>Golf Course Total</b>	<b>1,914.7</b>
<b>Parks and Golf Course Total</b>	<b>3,119.2</b>
<b>Key:</b>	
<sup>(1)</sup> Land conveyed or pending transfer to HCDA which is to be part of a cultural park, endangered plant refuge and wildlife habitat.	
<sup>(2)</sup> Land proposed for conveyance to the City as part of the Barbers Point Naval Air Station closure. As of April 2011, the land had not yet been conveyed. Includes beach camping areas now operated by the City under license from the Navy.	
<sup>(3)</sup> Land set aside for future parks to be developed and dedicated to the City.	
<sup>(4)</sup> Planned.	
<sup>(5)</sup> Land set aside for a future District Park to be developed by the City.	
<sup>(6)</sup> Beachfront parks developed by Ko ‘Olina Resort. Currently, they are owned, maintained, and managed by Ko ‘Olina Resort, but will be dedicated to the City in the future, as required by ordinance.	
<sup>(7)</sup> Land adjacent to Nimitz Beach Park to be transferred to HCDA for development for aquaculture and fisherman’s access.	
<sup>(8)</sup> City-owned golf courses.	



### 3.3.2 GUIDELINES

The following guidelines suggest how the general policies for Community-Based Parks should be implemented:

#### 3.3.2.1 Development of Community-Based Parks

- Co-locate Neighborhood or Community Parks with elementary or intermediate schools and coordinate design of facilities when efficiencies in development and use of athletic, recreation, meeting, and parking facilities can be achieved.
- Coordinate the development and use of athletic facilities such as swimming pools and gymnasiums with the State Department of Education (DOE) where such an arrangement would maximize use and reduce duplication of function.
- Where feasible, site Community and Neighborhood Parks near the center of neighborhoods, in order to maximize accessibility.
- Provide accessible pathways from surrounding streets to facilitate pedestrian and bicycle access to parks.
- Use xeriscaping (the use of native landscape materials with low water demand), nonpotable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

#### 3.3.2.2 Access to Mountain Trails

- Support continuation of controlled access to the Wai‘anae Range mountain trails via Pālehua Road for hiking organizations.
- Provide access to mountain trails in the Pālehua Ridge area via Pālehua Road as part of the Makaīwa Hills project.

#### 3.3.2.3 Siting

- Conceptual locations for district parks are shown on the Open Space Map in Appendix A. Being conceptual, these locations may be revised without needing to amend the Development Plan as more detailed site information and planning analysis is available.
- Community and neighborhood parks are part of the open space system, but their location is determined more by community design considerations than by their relationship to the regional open space network. Siting of Community and Neighborhood Parks should be reviewed and decided when the Project Master Plan is submitted, prior to the granting of a zone change.

### 3.4 HISTORIC AND CULTURAL RESOURCES

‘Ewa contains several different types of historic and cultural sites, which are representative of its history and valuable as historic records and cultural references. In addition, public views which include views along streets and highways, *mauka-makai* view corridors, panoramic and significant landmark views from public places, views of natural features, heritage resources, and other landmarks, and view corridors between significant landmarks, can be important cultural resources.

This section provides policies, and guidelines for the preservation and development of historic and cultural resources in ‘Ewa.



### 3.4.1 GENERAL POLICIES

- Emphasize physical references to ‘Ewa’s history and cultural roots to help define ‘Ewa’s unique sense of place.
- Protect existing visual landmarks, and support creation of new culturally appropriate landmarks.
- Preserve significant historic features from the plantation era and earlier periods.
- Vary the treatment of sites according to their characteristics and potential value.
- Use in situ preservation and appropriate protection measures for historic, cultural, or archaeological sites with high preservation value because of their good condition or unique features, as recommended by the State Historic Preservation Officer. In such cases, the site should be either restored or remain intact out of respect for its inherent value.
- Retain significant vistas whenever possible.
- Where known archaeological and cultural sites have been identified and impact mitigations approved as part of prior development approvals, assume that the mitigations carry out the Plan vision and policies for preservation and development of historic and cultural resources in ‘Ewa.

Exhibit 3.2 indicates the locations of a number of ‘Ewa’s significant historic and cultural resources, which are also listed in Table 3.1.

### 3.4.2 GUIDELINES

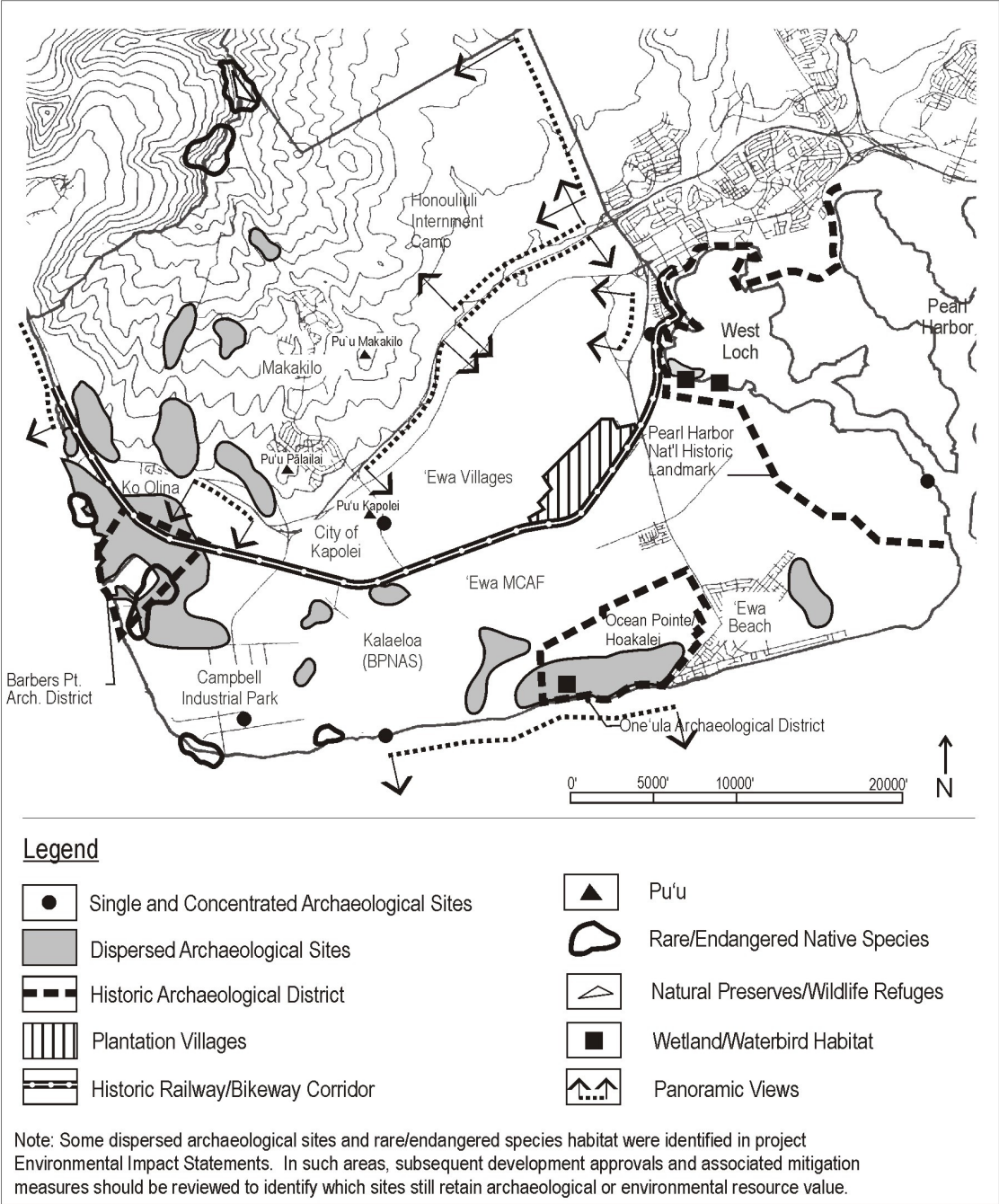
The following guidelines suggest how the general policies for Historic and Cultural Resources should be implemented:

#### 3.4.2.1 Sites Under Review

- **Adaptive Reuse** – Allow historic sites to be converted from their original intended use to serve a new function if it can be done without destroying the historic value of the site, especially if its interpretative value is enhanced.
- **Accessibility** - Public access to an historic site can take many forms, from direct physical contact and use to limited visual contact. Determine the degree of access based on what would best promote the preservation of the historic, cultural and educational value of the site, recognizing that economic use is sometimes the only feasible way to preserve a site. In some cases, however, it may be highly advisable to restrict access to protect the physical integrity or sacred value of the site.
- Protect the Honouliuli Internment Camp site from development until efforts to evaluate it for National Historic Register listing and for inclusion as a satellite site in the World War II Valor in the Pacific National Monument have established the value of the site and its appropriate treatment.
- Protect the ‘Ewa Marine Corps Air Field site in Kalaheo from development while a study is done to establish the condition of the site and the appropriate treatment of historic resources at the site.



**Exhibit 3.2**  
**Natural, Historic & Scenic Resources in the 'Ewa Development Plan Area**





**TABLE 3.2: SIGNIFICANT ‘EWA HISTORIC AND CULTURAL RESOURCES**

<b>SIGNIFICANT HISTORIC FEATURES AND LANDMARKS</b>	
‘Ewa Plantation Villages ‘Ewa Marine Corps Air Field Honouliuli Internment Camp Lanikūhonua	OR&L Historic Railway & Railway Stock Pearl Harbor National Historic Landmark Pu‘u Makakilo Pu‘u O Kapolei/Fort Barrette
<b>NATIVE HAWAIIAN CULTURAL AND ARCHAEOLOGICAL SITES</b>	
Barbers Point Archaeological District ‘Ewa Beach Midden Site	‘Oki‘okiolepe Pond One‘ula Archaeological District
<b>SIGNIFICANT VIEWS AND VISTAS</b>	
<ul style="list-style-type: none"> <li>• Distant vistas of the shoreline from the H-1 Freeway above the ‘Ewa Plain;</li> <li>• Views of the ocean from Farrington Highway between Kahe Point and the boundary of the Wai‘anae Development Plan Area;</li> <li>• Views of the Wai‘anae Range from H-1 Freeway between Kunia Road and Kalo‘i Gulch and from Kunia Road;</li> <li>• Views of Nā Pu‘u at Kapolei, Pālailai, and Makakilo;</li> <li>• <i>Mauka</i> and <i>makai</i> views; and</li> <li>• Views of central Honolulu and Diamond Head, particularly from Pu‘u O Kapolei, Pu‘u Pālailai, and Pu‘u Makakilo.</li> </ul>	

### 3.4.2.2 Impacts of Development on Historic and Cultural Resources

- **Compatible Setting** - The context of an historic site is usually a significant part of its value. Plan and design adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site. The appropriate treatment should be determined by the particular qualities of the site and its relationship to its physical surroundings.
- **Public Views** - Design and site all structures, where feasible, to reflect the need to maintain and enhance available views of significant landmarks and vistas. Whenever possible, relocate or place underground overhead utility lines and poles that significantly obstruct public views, under criteria specified in State law.

### 3.4.2.3 OR&L Historic Railway

#### Method of Preservation

- Maintain or repair the existing track to the extent feasible in order to permit its use for historic and educational rides.
- Extend the route from ‘Ewa Villages to Nānākuli.
- To allow connectivity within the region, accommodate cross-traffic at appropriate intervals along the right-of-way, and at sufficient distances from one another to prevent impeding normal locomotive operations.

#### Adaptive Reuse

- Encourage use of the railroad to promote the history and culture of the area.
- Develop a parallel paved pedestrian path/bikeway along the length of the rail route, either within or adjacent to the right-of-way as part of the Pearl Harbor Historic Trail, even in those sections where the railroad itself is not operational. The pedestrian path/bikeway should be designed so as not to interfere with historic railway operations.



**Adjacent Uses**

- Design structures and elements related to the Pearl Harbor Historic Trail to reflect the historic nature of the railway and its surroundings.
- Set back new development a minimum of 50 feet on either side of the OR&L right-of-way, unless it is either directly related to the operation of the railroad, or reconstruction of an historic use, or is consistent with the use of the right-of-way for open space and shared pedestrian path/bikeway purposes in stretches where railroad operation is not feasible, or is otherwise specified in existing land use approvals.
- Provide landscaping along the adjacent shared pedestrian path/bikeway, with occasional rest stops with seating and other amenities.
- Permit railroad station platforms, maintenance and equipment buildings, kiosks and other accessory structures with a historic architectural theme (late 19<sup>th</sup> Century – early 20<sup>th</sup> Century), as well as parking and loading areas in the railroad right-of-way and setback area.
- Roadway and transit facilities should be designed to have minimal impact on historic railway operations.

**Public Access**

- Encourage public use by continuing and expanding the historic railway operations, providing a parallel shared pedestrian path/bikeway, and by providing greater connectivity by connecting the Trail to City parks and other access points through the addition of scenic shared use paths in ‘Ewa and Ko ‘Olina.
- Post interpretative signs along the route to explain the historic significance of the railroad and note points of interest.

**3.4.2.4 Lanikūhonua****Method of Preservation**

- Maintain the appearance of the house and grounds as closely as possible to its present condition.
- Maintain the landscaped character of the grounds and their physical and visual relationship to the shoreline environment.
- Perpetuate the sense of place by using the site for Hawaiian cultural events.

**Adaptive Reuse**

- Focus use of the site on the landscaped grounds as a location for outdoor events, particularly those with a Hawaiian cultural theme.
- Limit commercial use of the site to be occasional rather than intensive, and events to low-key entertainment.

**Architectural Character**

- Require modifications to the existing structures to respect the architectural style of the original dwelling and be limited to repairs, rehabilitation or minor expansions.
- Require coconut palms to be the dominant tree on the grounds, with other complementary coastal vegetation, preferably native species such as *hala* and *‘ilima*.
- Maintain the visual relationship between the grounds and the shoreline, particularly the natural cove.

**Adjacent Uses**

- Maintain a dense growth of landscaping to visually separate Lanikūhonua from the surrounding Ko ‘Olina resort to retain the quiet ambiance and appearance of a remote tropical retreat.
- Maintain the visual identity of Lanikūhonua as a unique site apart from Ko ‘Olina by retaining the dense growth of tall palm trees.
- Provide public access along the shoreline fronting Lanikūhonua, but not in as formal a manner as Ko ‘Olina.



**Public Access**

- Maintain Lanikūhonua as a private facility with limited public access for scheduled community and cultural events and private parties.

**3.4.2.5 Native Hawaiian Cultural and Archaeological Sites**

**Method of Preservation**

- Require preservation in situ for those features that the State Historic Preservation Officer has recommended for such treatment.
- Determine the preservation method, ranging from restoration to “as is” condition, on a site-by-site basis, in consultation with the State Historic Preservation Officer.

**Adjacent Uses**

- Determine appropriate delineation of site boundaries and setbacks and restrictions for adjacent uses on a site-by-site basis in consultation with the State Historic Preservation Officer.
- Include the sight lines that are significant to the original purpose and value of the site as criteria for adjacent use restrictions.

**Public Access**

- Determine the appropriateness of public access on a site-by-site basis in consultation with the State Historic Preservation Officer, Hawaiian cultural organizations and the owner of the land on which the site is located.

**3.5 NATURAL RESOURCES**

This section describes the general policies, and guidelines that are to be applied to protect ‘Ewa natural resources.

**3.5.1 GENERAL POLICIES**

- Conserve potable water.
- Protect valuable habitat for waterbirds and other endangered animals and plants.
- Protect endangered fish and invertebrates in sinkholes.
- Clean up contaminated areas that pose hazards to soil and water quality, especially in Kalaeloa.
- Require surveys for proposed new development areas to identify endangered species habitat, and require appropriate mitigations for adverse impacts on endangered species due to new development.
- Reduce light pollution’s adverse impact on wildlife and human health and its unnecessary consumption of energy by using, where sensible, fully shielded lighting fixtures using lower wattage.

**3.6 CITY OF KAPOLEI**

This section describes the general policies and guidelines that are to be applied to development of the City of Kapolei.

This section incorporates key policies and guidelines for the City of Kapolei from the amended **The City of Kapolei Urban Design Plan** approved by the City Council by resolution in 2008, and the Unilateral Agreements adopted as part of zoning ordinances in 1990 and 2004.

The original Unilateral Agreement required revisions and updates to the Urban Design Plan be submitted for review and approval by the City Council every two years. However, in June 1998, the City Council passed a resolution



(No. 98-227) which approved revisions to **The City of Kapolei Urban Design Plan** and stated that no further amendments or revisions to the Urban Design Plan should be made unless they are first recommended by the Kapolei Design Advisory Board, endorsed by Campbell Estate and approved by a City Council resolution.

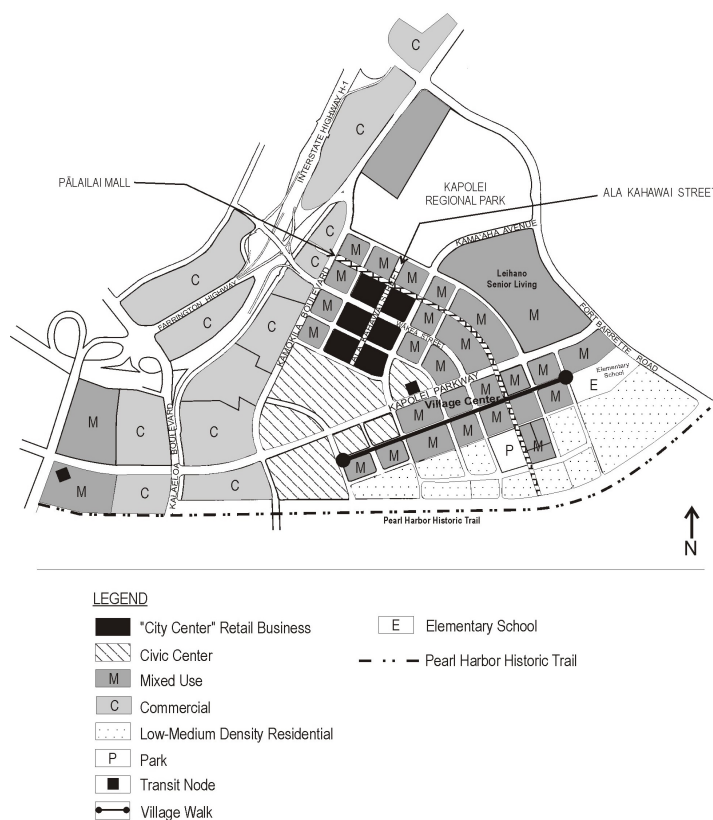
(Note: The Urban Design Plan applies to Campbell Estate's properties covered by the 1990 Unilateral Agreement and to adjacent areas also covered by unilateral agreements adopted as part of subsequent zone changes.)

Future revisions to **The City of Kapolei Urban Design Plan**, when adopted by the City Council, should take precedence over the following policies, and guidelines in the case of a conflict and should not require an amendment to the Development Plan.

### 3.6.1 GENERAL POLICIES

- Develop the City of Kapolei as the urban core, or the “downtown” for the Secondary Urban Center. It should accommodate a major share of the new employment in the Secondary Urban Center.
- Allow the City of Kapolei to have a balanced mix of business and residential areas, complemented by the recreational, social and cultural activities of a city. Mixed use should be permitted and encouraged throughout most of the City area, in order to achieve the diversity and intensity of uses that characterize a city.
- Develop the City of Kapolei as a true city, encompassing a full range of urban land uses, and laid out in small blocks connected by a grid system of public streets. Exhibit 3.3 illustrates the street pattern and the planned land uses by district.

**Exhibit 3.3**  
**City of Kapolei Land Use Map**





### 3.6.1.1 Districts

The City should be composed of six different districts that should accommodate the full array of business, commercial, residential, cultural and public uses that characterize a city center. The six districts are described below:

- The **City Center** should be the high-density core of the city. Larger office towers should be the predominant form of development in this district, with shopping and restaurants at ground level. The inclusion of apartments within some of the towers should also be encouraged to establish a more dynamic mix of uses and help to maintain an active urban environment in the area.
- The **Commercial District** should accommodate commercial uses, which require a large lot area for all related activities and convenient off-street parking, with most, if not all spaces, located at ground level. Building spaces should generally cover a relatively small portion of the lot (e.g., 25 percent or less).
  - Examples of possible uses include shopping centers, power centers, theaters, auto dealerships, discount retail outlets, furniture stores, and home improvement centers.
- The **Civic Center** should feature City and State offices in an urban park setting where people and activities are highlighted. The Civic Center should be much like a university campus in the heart of a city, with a balance between built forms and usable landscaped spaces, and between both active and passive uses.
- The **Mixed Use Districts** should be of medium density, with buildings limited to 120 feet next to the City Center, dropping to 90 feet, and then 60 feet farthest from the City Center. Commercial development should be emphasized in the area adjoining City Center, along Kapolei Parkway, and adjoining the Hānu‘a Street extension, while residential use should be emphasized *makai* of Kapolei Regional Park and near Fort Barrette Road.
  - In the *commercial emphasis mixed-use areas*, retail development (shopping, restaurants, services, etc.) should be encouraged to locate along the street front, with required parking located behind the building or above the ground floor. Offices may also be located on the ground floor, as well as on upper floors. Housing, when provided, should be located above the ground floor. A business hotel to provide short term inexpensive accommodations for business travelers and others who are not seeking resort accommodations could also be allowed.
  - In *residential emphasis mixed use areas*, the primary use should be multi-family dwellings. Commercial uses to meet the shopping and service needs of the neighborhood’s residents should be encouraged to locate at ground level.
- The **Village Center District** should be the vibrant, pedestrian friendly local shopping dining and entertainment center for residents living in the Mehana District *makai* of the Kapolei Parkway, as well as people living and working in the Mixed Use District on the *mauka* side of the Parkway.
- The **Mehana District**, located *makai* of Kapolei Parkway, should feature multi-family and single-family housing units in a series of distinct neighborhoods tied together by a network of pedestrian and bicycle paths.

### 3.6.1.2 Key Open Space Elements

Four key open space elements should link together and unify Kapolei’s districts into a distinctive, vibrant city. Each of these important spaces is described below:

- **Kapolei Regional Park** should be the major park for both the City of Kapolei and the surrounding region. It should also function as both the City’s *mauka* edge and as a visual gateway to the City. As a strong activity node with a variety of recreational opportunities, it should reinforce the image of Kapolei as a place where people can lead an active, healthy lifestyle.
  - The park should provide opportunities to participate in a diversity of recreational activities. Facilities should be included to allow users to bike, walk, hike and jog, and to play volleyball, soccer, football,



- baseball, and tennis. Multi-use open space should also be available for picnicking, sunbathing and relaxing.
- Facilities for public concerts and gatherings, such as an amphitheater and pavilions, as well as amenities for broader use and enjoyment, such as a formal garden, restaurants and water features, should also be included to help generate both day and evening activity in and around the park.
  - The *makai* edges of the park adjacent to the City's downtown should be designed to ensure a strong relationship between City and park. The various structures in this area and elsewhere in the park should be designed to ensure compatibility and integration with adjacent commercial uses.
  - **Ala Kahawai Street** should function as a "Main Street" and major open space axis and amenity within the most central and highest density area of the City. Ala Kahawai Street connects the Regional Park and Civic Center and comprises the central spine for the City Center district.
    - The corridor should be wide enough to provide a genuine sense of open space, yet not so wide as to disconnect developments on opposite sides from each other. Slow moving vehicular traffic should be allowed from Manawai Street to Ulu'ōhi'a Street to allow previewing of the opportunities for shopping, dining and entertainment along the corridor.
    - Canopy shade trees, ample landscaping, seating and water features should be prominent elements of the design in order to create a comfortable atmosphere and promote the idea of Kapolei as a garden city.
  - **Pālailai Mall** should provide an open space cross axis to Ala Kahawai Street, extending *mauka-makai* and connecting the City's residential sector to the heart of Kapolei's business district.
    - Canopy shade trees and benches, etc. should be provided as appropriate to establish the mall's character as a pleasant landscaped path for pedestrian circulation.
    - Extensive interaction between pedestrians and the activities in adjoining buildings, and the establishment of a "shopping promenade" character, should be fostered by encouraging the location of kiosks, sidewalk cafes, retail shops, and other people-oriented activities within and along the edges of the mall.
  - **Village Walk** should provide an informal pedestrian spine for the City's residential area, with connections to the Civic Center, the *makai* end of Pālailai Mall, and the Mehana Elementary School.
    - Landscaping, seating, and other furniture should be provided and arranged in a manner which establishes a pleasant atmosphere for informal gatherings of neighbors, as well as for movement through the area.
    - Both pedestrians and bicyclists should be accommodated in a manner that minimizes conflicts.

### 3.6.2 MAJOR THEMES

Seven major themes define key characteristics of the City of Kapolei used in the planning and design of developments in the City of Kapolei.

- **A Hawai'i Garden City** - A city within a garden, in the style of long established Hawai'i communities, is to be created. The garden is distinguished by major parks and boulevards with trees, flowers and abundant ground cover.
- **Healthy Living** - The garden city is to provide the setting for and encourage a healthy, outdoor, and active lifestyle through the interlacing of recreational facilities within the fabric of the entire city. These are to be connected by bike and walking paths.
- **Complete Community Services** - The theme of healthy living is to be supported by medical/health/fitness services and facilities. The City of Kapolei is also to serve the surrounding region with entertainment, cultural, educational and religious facilities, State and City government offices, and other city activities.
- **Easy Access** - Within the garden city, attractive paths for walking and biking should allow for convenient access between homes, jobs and recreational areas.
- **Design Reflecting the Past but Adaptable to the Needs of the Present and Future** - Building design in the City of Kapolei should reflect both the charm and more intimate human scale that characterizes the business



districts of traditional Hawai‘i towns such as Hilo, and the market forces and functional needs that shape the architecture of present-day and future business centers.

- **Environmental Sensitivity** - Resource conservation should be emphasized in the design of both the overall city center and its individual parts. The network of bike and walking paths, combined with the concentration of uses that make urban life convenient, should encourage people to leave their cars at home. Landscaping should be abundant and make extensive use of drought tolerant and native plant materials (xeriscaping) to the extent possible.
- **Transit Access and Orientation** - A transit node should be located near the Civic Center and City Center, and medium density residential uses should be encouraged within a five minute walking distance (about 1,300 feet) of the node. Uses adjoining the node should be designed so that they face toward the node, encouraging pedestrian traffic to flow to and from the node.
  - As part of the Development Plan vision for a transit corridor linking the City of Kapolei, Waipahū, and the Primary Urban Center, higher density residential and commercial development should be encouraged around the City of Kapolei transit node and the transit corridor on Kapolei Parkway.

### 3.6.3 GUIDELINES

The following guidelines suggest how the general policies for the City of Kapolei should be implemented:

#### 3.6.3.1 Urban Form

- Keep block lengths relatively short (300 to 400 feet) in order to provide for flexible, interesting and reasonably direct pedestrian routes between work places, restaurants and shops. Short blocks will encourage people to walk for these trips.
- Permit heights for each of the districts of the City as specified in the **The City of Kapolei Urban Design Plan** (2008) and shown in Table 3.3.

TABLE 3.3 HEIGHT GUIDELINES FOR THE CITY OF KAPOLEI	
DISTRICT	HEIGHT
City Center	150 feet
Civic Center	150 feet <i>mauka</i> of Kapolei Parkway 90 feet <i>makai</i> of Kapolei Parkway
Mixed Use Districts	120 to 60 feet
Commercial Districts	60 feet
Village Center District	60 feet
Mehana District	60 to 25 feet

Source: **The City of Kapolei Urban Design Plan** (November 2007) adopted by Res. 07-372 (January 2008).

#### 3.6.3.2 Natural Environment and Landscaping

- Use nonpotable water features and automated irrigation systems wherever possible.
- Use xeriscaping (the use of native landscape materials with low water demand), nonpotable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.
- Use landscaping consistent with the City of Kapolei’s image as a green and shaded garden city to provide privacy, screening, shade, and comfort.
- Use landscaping to enhance and complement the City’s urban form, provide continuity between the various districts, and enhance and preserve view corridors wherever possible.



### 3.6.3.3 Public Access and Circulation

- Design the City of Kapolei to provide safe, easy, and efficient access for pedestrian, bicycle, and vehicular movement between each of the districts, the open space areas, and recreational amenities.
- Establish a clear pattern of arterials and local streets to facilitate travel through the City, to and from individual properties. The streets should form a modified grid pattern, providing a variety of routes for circulation. Major streets include Kamokila Boulevard, Kapolei Parkway, Kama'aha Avenue, and Wākea Street, with Fort Barrette Road and Kalaeloa Boulevard bounding the City on the east and west.
- Vary cross-section design and landscaping schemes with function and to establish distinctive urban images for each type of street.
- Provide for bus pullouts and shelters along major traffic arterials.
- Provide sufficient width in the median of Kapolei Parkway to accommodate a future elevated rapid transit line.
- Permit on-street parking along all streets until traffic levels necessitate the use of the entire roadway for vehicular movement. Such parking will be convenient for shoppers, provide a buffer between traffic on the street and pedestrians on the sidewalk, and contribute to the activity level along the City's streets.
- Provide exclusive bike lanes along major roadways within the City which are connected to the region's bikeway system. Where automobiles and bicycles share the same roadway, lane widths should be generous to allow safe usage by both.

## 3.7 'Ewa PLANTATION VILLAGES

This section incorporates key elements for 'Ewa Plantation Villages from the former **'Ewa Development Plan** and the **'Ewa Villages Master Plan** (Department of Housing and Community Development, 1992) to provide guidance in the event that changes are proposed for the Master Plan or zoning in the future. The **'Ewa Villages Master Plan** is scheduled for updating and revision in the near future. When approved, the updated Master Plan policies and guidelines will take precedence over the following in the event of a conflict and should not require an amendment to the Development Plan.

The City and County of Honolulu acquired the 600 acres surrounding and including Tenney, Renton and Varona Villages in 1993. Subsequently, the City did extensive rehabilitation of housing and community facilities, a City golf course was developed to provide storage for stormwaters, and 'Ewa Mahikō District Park was built to provide a needed community-based recreation area. The Villages have been on the Hawai'i Register of Historic Places since 1996.

### 3.7.1 GENERAL POLICIES

- Preserve and enhance the existing rural form and historic character of the remaining 'Ewa Villages.
- Ensure continued tenancy and ownership opportunities for current residents.
- Use the Master Plan as a vehicle for preservation efforts within the existing villages.
- Rehabilitate or adapt existing village structures in the 'Ewa Villages for reuse.
- Develop related affordable and market housing to create a total of 1,900 units, including the existing housing.
- Develop additional neighborhood parks/open space, and a small shopping center; and make infrastructure improvements.
- Re-establish 'Ewa Villages as a thriving and identifiable community, and a living example of Hawai'i's plantation heritage through the preservation of existing schools and churches, the expansion of parks and public open space areas, and the establishment of community facilities and a market place for local businesses.



### 3.7.2 GUIDELINES

The following guidelines suggest how the general policies for ‘Ewa Villages should be implemented.

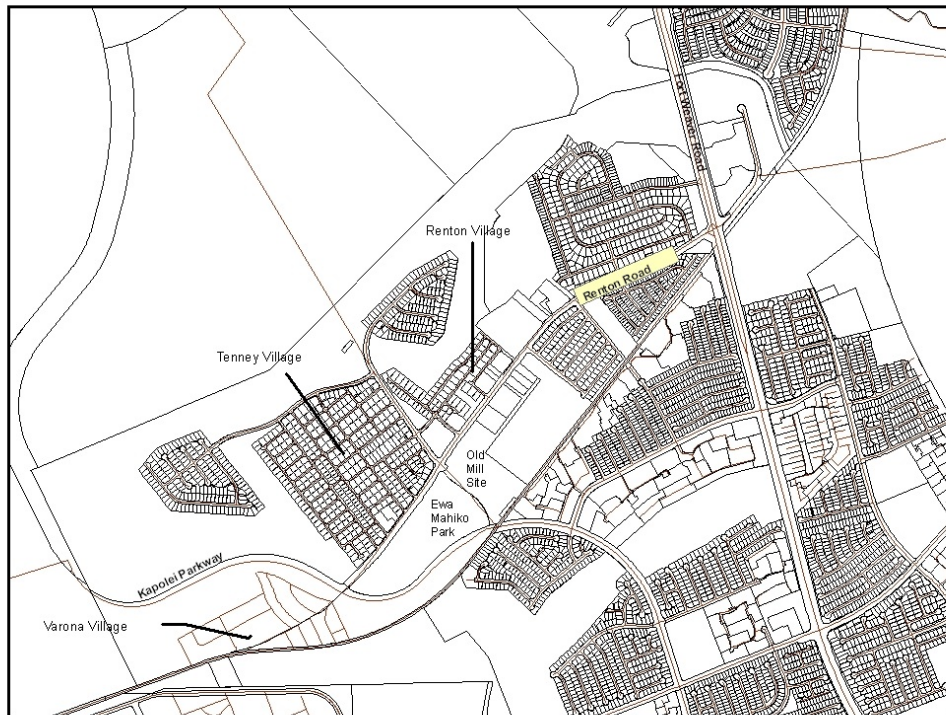
#### Retention of Historic Buildings

- Preserve and maintain existing buildings of historical, cultural or both architectural significance through rehabilitation programs and adaptive reuse.

#### Urban Form

- Develop vacant areas in a style that is characteristic of the historic core.
- Maintain the current grid development pattern in the existing villages and replicate it in new infill developments.
- Require lot sizes for new infill homes in the existing villages to be similar to the existing house lots.
- Rehabilitate existing structures to the extent possible, in a manner that will not change their exterior appearance.
- Design new structures on vacant lots in the existing villages to complement the exterior design of adjacent homes.
- Physically separate new infill “villages” from Tenney, Renton, and Varona Villages. The design, appearance, and placement of structures within them should reflect and complement the existing village’s character. (See Exhibit 3.4.)
- Re-establish a neighborhood and commercial services core within the ‘Ewa Plantation Villages in order to retain both a focal point of community activities and promote village identity.

**Exhibit 3.4:**  
**‘Ewa Plantation Villages Location**





**Circulation**

- Prohibit establishment of standard subdivision street hierarchy within the village and maintain the existing grid pattern and extend it into new infill development.
- Locate any new required collector streets outside the existing villages.
- Maintain narrower than standard street widths without sidewalks (in the residential portions) of the existing villages, and establish similar widths within new villages, in order to minimize the impacts on existing yards and structures, and visually maintain a rural village character.
- In keeping with its Historic Register site designation, restrict traffic on Renton Road to two lanes of traffic in each direction during peak hours and one lane of traffic and one lane of restricted parking during nonpeak hours.

**Open Space/Views**

- Where possible, provide open space buffers between the existing villages and new housing development in order to preserve and enhance the integrity and historic character.
- Preserve and expand existing village greens and open promenades, etc., where possible. Preserve and maintain existing landscaping within Renton, Tenney, and Varona Villages, especially existing stands of mature palm, mango, banyan, and monkey pod trees. Where trees have been removed, provide appropriate replacements.
- Provide appropriate canopy trees along all street frontages.
- Maintain principal entry roads to and through the villages as tree-lined boulevards. Highlight entries with additional landscape features.
- Landscape and maintain yards and other open spaces in a manner that preserves and enhances the open space appearance of the villages.

**3.8 OCEAN POINTE/HOAKALEI**

Ocean Pointe/Hoakalei's development is guided by the **Ocean Pointe/Hoakalei Urban Design Plan** approved by the Department of Planning and Permitting in August 2008 and by land use, environmental, and design requirements included in the Special Management Area Use Permit and in the Unilateral Agreements attached to the zone change ordinances (1985, 1993, 2002, 2004, and 2007).

Development of Ocean Pointe/Hoakalei can proceed under the existing zoning and Unilateral Agreement. This section incorporates key policies and guidelines from the former Development Plan as well as from the **Ocean Pointe/Hoakalei Urban Design Plan**, the Special Management Area Use Permit, and the Unilateral Agreements in order to provide guidance as changes are proposed for the Urban Design Plan or the zoning.

**3.8.1 GENERAL POLICIES**

- Develop Hoakalei as the region's principal recreational marina destination for local residents and visitors. With over 1,100 acres located between 'Ewa Beach and Kalaeloa, the Ocean Pointe/Hoakalei community should be centered around a marina that should serve as a major recreational resource and visual amenity for the community. The marina should provide recreational boating opportunities, supported by boat slips, marine haul-out and other repair facilities, and a public boat ramp. The marina could also serve as a terminal for a commuter ferry to downtown Honolulu if such service is found to be feasible and if financing can be found for the improvements needed to serve such a ferry.
- A recreational waterfront project (consisting of a lagoon) may be developed where the marina is shown on the map (Exhibit 3.5). Such a waterfront development would similarly serve as a major recreational resource, visual amenity, and economic generator for the community, and is a compatible use that would not preclude eventual development of a marina.



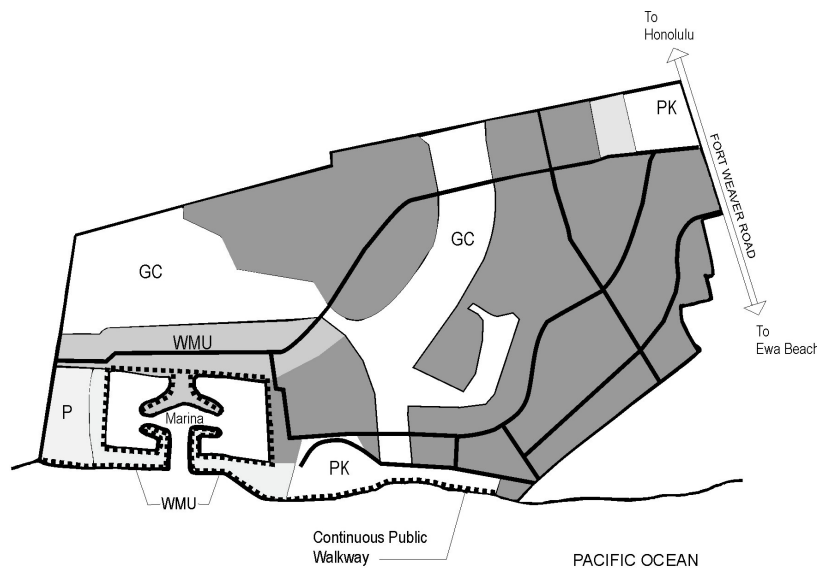
- Develop Ocean Pointe/Hoakalei in ways that ensure environmental compatibility of uses.
- Provide substantial public areas at Ocean Pointe/Hoakalei through shoreline and waterfront access, expansion of One‘ula Beach Park, and dedication of a District Park on Fort Weaver Road.
- Develop the public waterfront promenade at Hoakalei with a hard edge and a focus on recreational water activities. Provide shoreline parks linked by pedestrian ways for public use along the entire waterway.
- Develop the golf course to provide a major open space and visual amenity while also providing detention basins to receive run-off from light storms.
- On the west, develop a mix of activities around the basin, including a **Waterfront Mixed Use** area with resort and commercial development, a **Medium Density Residential** area, and a **Light Industrial Mixed Use Support** area. Hoakalei is planned to have about 950 visitor units to support its waterfront-oriented activities.

### 3.8.2 OCEAN POINTE/HOAKALEI LAND USE MAP

The Ocean Pointe/Hoakalei Land Use Map, Exhibit 3.5, illustrates conceptual land uses described above and provides a schematic view of the roadway system within Ocean Pointe/Hoakalei.

The boundaries between the golf course and the Waterfront Mixed-Use and Low- to Medium-Density Residential areas are intended to be flexible. Integration of urban uses with the golf course area is encouraged, as long as the golf course area remains effective in retaining stormwater drainage.

**Exhibit 3.5**  
**Ocean Pointe/Hoakalei Land Use Map**



**LEGEND**

P	Preservation
GC	Golf Course
PK	Park
	School
	Low-Med Density Residential
WMU	Waterfront Mixed Use
-----	Pedestrian Walkway





### 3.8.3 GUIDELINES

The following guidelines suggest how the general policies for Ocean Pointe/Hoakalei should be implemented:

#### **Appropriate Scale and Siting**

- Minimize the visibility of large building volumes and elements from waterfront and residential areas through building envelope restrictions, site planning and landscaping.

#### **Environmental Compatibility**

- Do not develop residential and apartment units in areas that would expose residents to excessive aircraft noise.
- Since airport operations have continued at Kalaeloa, ensure land uses at Ocean Pointe/Hoakalei are compatible with airport operations and respect restrictions on development within airport approach and clear zones.
- Locate and operate uses that generate high noise levels in a way that keeps noise to an acceptable level in existing and planned residential areas.
- Design and develop the built environment to avoid adverse impacts on natural resources or processes in the coastal zone.
- To retain a sense of place, incorporate natural features of the site and utilize landscape materials that are indigenous to the area in the design of hotel and recreation areas, where feasible.

#### **Community Integration**

- Although the design of Ocean Pointe/Hoakalei may have a distinct identity and entry, link Ocean Pointe/Hoakalei with surrounding areas, such as 'Ewa Beach and Kalaeloa by using connecting roadways, walkways, landscape and architectural design.

#### **Urban Form**

- **Waterfront Light Industrial Mixed Use** - Develop a light industrial mixed use support area adjacent to the basin providing facilities such as repair and storage. Building heights should generally not exceed 60 feet in this area.
- **Waterfront Mixed Use** - Develop a waterfront commercial center with associated visitor units adjacent to the waterfront, featuring a wide public promenade with retail attractions. Hotel and apartment buildings in this area should generally not exceed 90 feet and all other buildings should generally not exceed 60 feet. Buildings with frontage on the interior basin should be limited to 40 feet. Buildings taller than 40 feet should be set back from the basin frontage.
- **Medium Density Residential Area** - Develop a medium density residential area adjacent to the Waterfront Mixed Use area to provide a transition between the mixed uses of the Waterfront Mixed Use area and the Single Family and Low Density Residential area to the east. Building heights in this area should generally not exceed 60 feet.
  - In order to minimize the visual impacts of the Medium Density Residential areas adjacent to One'ula Beach Park, the developer should:
    - Maximize *mauka-makai* and other view corridors in the area by orienting the narrow dimension of buildings parallel to the shoreline or predominant view;
    - Maximize open space by minimizing building bulk and using extensive landscaping to create a park-like setting; and
    - Provide greater setbacks and/or terraced building setback from the edge of the basin for buildings exceeding 25 feet in height.
- **Single Family and Low Density Residential Area** - Develop a residential community characterized by low-rise apartments and single-family homes in this area. Building heights should generally not exceed 30 feet.



- There should be a minimum building setback of about 40 feet along the basin’s edge to accommodate a public waterfront promenade. Lesser setbacks may be permitted upon design review and approval by the department of planning and permitting.
- Allow a small portion of the setback area to be covered by low-rise buildings to allow for boat servicing, appropriate commercial uses, storage and clubhouses. The maximum building height at the setback line in these areas should be around 40 feet, rising one foot for each additional foot of setback to a maximum of around 60 feet in the Medium Density Residential area and around 90 feet in the Waterfront Mixed Use area.
- Set back all structures a minimum distance of 150 feet from the shoreline. Lesser setbacks may be permitted upon design review and approval by the department of planning and permitting. The maximum building height at the setback line along the shoreline should be 40 feet, rising one foot for each additional foot of setback up to the appropriate height limit.

**Natural Environment**

- Retain, enhance, and protect wetlands and other wildlife habitats.
- Design the golf course to accommodate stormwater runoff in a manner that maintains coastal water quality and avoids the use of concrete channels for diversion drainage. Design the waterway to accommodate the runoff of collected stormwaters generated by a potential 100-year storm. Channel design should use the most effective means to provide natural flushing of its waters. Develop silting ponds *mauka* of the site to preserve water quality so that use of the near-shore waters for recreational purposes and aesthetic enjoyment is not limited in any way.
- Avoid the use of breakwaters or jetties at the marina entrance, in order to preserve surf sites.

**Public Access**

- Provide a continuous pedestrian pathway open to the public along the shoreline and along most of the basin, with the exception of sections where private residential lots directly front the basin.
- Provide access to the entire waterway and ocean shorelines to the public through the internal and peripheral pedestrian pathways.
- Provide public parking, restrooms, and shower facilities at regular intervals for all sandy beach areas.

**Views and Vistas**

- Preserve and enhance views from public streets and thoroughfares to the mountains and sea wherever possible. In particular, distant views of the Wai‘anae Range and the south coast of O‘ahu toward Honolulu and Diamond Head from the public promenade near the marina entrance channel should be preserved.
- Orient hotel and apartment facilities in relationship to the waterfront so as to preserve and maximize both *mauka* and *makai* views.

**Circulation**

- Design the street network to provide for a reasonably direct route through Kalaeloa to connect Ocean Pointe/Hoakalei to the City of Kapolei and Kualaka‘i Parkway (the former North-South Road).
- Design all major roadway corridors to provide for bus pullouts and bus shelters, bike paths, and sidewalks that are separated from the vehicular travel way by a landscape buffer.

**Landscape Treatment**

- Provide generous landscaping and vegetation throughout the development to promote tropical beauty and provide visual relief and a feeling of spaciousness.
- Design landscaping to provide continuity between residential, resort, waterfront uses, commercial areas, the shoreline, golf course, and parks.
- Design landscaping to provide privacy, screening, shade, and temperature control.



### 3.9 EXISTING AND PLANNED RESIDENTIAL COMMUNITIES

This section provides general policies and guidelines for the development of new communities and the expansion or renovation of existing communities. Guidelines are provided for three types of residential uses: **Residential**, **Low Density Apartment**, and **Medium Density Apartment**.

- **Residential** areas consist of one and two-story single-family attached and/or detached dwellings with individual entries.
- **Low Density Apartment** areas consist of two- and three-story townhouse or low-rise apartment buildings. Dwelling units may have common entries, but buildings are typically nonelevator structures.
- **Medium Density Apartment** developments take the form of multi-story apartment buildings. They may be located in mixed-use zones, with the ground floor or lower floors occupied by retail and service commercial uses.

#### 3.9.1 GENERAL POLICIES

- **Overall Density** - To achieve the desired compactness and character of development in planned residential communities, develop with the housing density of the aggregate area zoned for residential use (including the streets) in the range of 10 to 15 units per acre. (This average does not include areas zoned for commercial or industrial use.)
- **Higher Density Housing Along the Transit Corridor** - To promote use of mass transit, develop higher-density residential use along a major rapid transit corridor linking Kapolei with Waipahū and Primary Urban Center communities to the east. Medium Density Apartment and Commercial uses should be developed at eight transit nodes. Each node would cover a 1/4 mile radius (about a five minute walking distance) around a major transit stop. Develop areas along the rapid transit corridor at housing densities of 25 units per acre, with greater densities encouraged within the eight transit nodes. See the Urban Land Use Map and the Public Facilities Map in Appendix A for the location of the eight nodes.
- **Affordable Housing** - Require that thirty percent of the housing units in new residential developments be affordable to low and low-moderate income households.
- **Physical Definition of Neighborhoods** - Make the boundaries of neighborhoods evident through the use of natural features, street patterns, landscaping, building form, and siting. The focus of neighborhood activity should be on the local street or a common pedestrian right-of-way or recreation area.
- **Community Centers** - In the Master Plan for each new residential community, identify where its village center, town center or “Main Street” area is and how that center or Main Street will be established and supported by any existing or planned commercial development.
- **Compatible Mix of Building Forms** - Use a variety of housing types and densities to avoid visual monotony and accommodate a variety of housing needs, but avoid sharp contrasts between the exterior appearance of adjacent housing areas.
- **Transit-Oriented Streets** - Design street patterns and rights-of-way to accommodate mass transit service and make it convenient to access for as many households as possible.
- **Connectivity** - Minimize dead end streets, provide for intersections at regular intervals, and connect with adjacent development. Allow roadway cross-sections within new residential developments to be reduced from current standards where higher capacity is provided by multiple alternative routes.
- **Pedestrian and Bicycle Travel** - Encourage pedestrian and bicycle travel, particularly to reach neighborhood destinations such as schools, parks, and convenience stores. At a minimum, provide pedestrian and bikeway connectivity, where roadway connectivity is deemed not feasible, to allow direct travel through the community and to neighborhood districts.



- **Integration of Linear Corridors** - Encourage physical and visual connections between communities through the creative design of transportation and utility corridors and drainage systems.
- **Provision of Community Facilities** - Provide land for community facilities including churches; community centers, and elderly and child care centers.

Table 3.4 gives an overview of the density and height guidelines for planned and existing residential developments.

<b>TABLE 3.4: DENSITY AND HEIGHT GUIDELINES BY RESIDENTIAL DENSITY CATEGORY</b>		
<b>Residential Category</b>	<b>Density (Housing Units)</b>	<b>Building Height</b>
Residential	5-12/acre	not over two stories
Low Density Apartment	10-30/acre	not over three stories
Medium Density Apartment	25-90/acre	not over 90 ft <sup>1</sup>
<sup>1</sup> Building heights up to 150 feet allowed in City of Kapolei and Ko ‘Olina.		

Conceptual locations for residential, low-density apartment, and medium-density apartment development are shown on the Urban Land Use Map in Appendix A and in maps of specific developments in Exhibits 3.3, 3.5, and 3.6. See Section 3.9.3 for further discussion of the Urban Land Use Map.

### 3.9.2 GUIDELINES

The following guidelines suggest how the general policies for Existing and Planned Residential Communities should be implemented.

#### Residential

##### Density

- Develop at densities of 5 to 12 units per acre, encouraging more compact, innovative, environmentally sensitive design and alternative layouts.

##### Building Height

- In general, limit buildings to not exceed two stories, although the height may vary according to required flood elevation, slope, and roof form.

##### Site Design

- Use features such as varied building setbacks and shared driveways to avoid monotonous rows of garages and driveways along neighborhood street frontages.

##### Building Form

- Use varied roof forms, exterior colors and finishes, building orientation, floor plans, and architectural details to provide visual interest and individual identity.

#### Low Density Apartment

##### Density

- Develop at densities of 10 to 30 units per acre.



**Height**

- In general, limit buildings to not exceed three stories above grade. Maximum building heights should allow for pitched roof forms.

**Building Form**

- Use building form, orientation, location of entries and landscape screening to maintain a sense of residential scale and provide greater privacy and individual identity for housing units.

**Compatibility**

- Ensure that building scale, roof form, and the quality of materials are compatible with those of adjacent low-density residential areas.

**Medium Density Apartment**

**Location**

- In general, locate medium-density apartment buildings in large planned residential communities, adjacent to major collector streets, commercial or civic centers.
- Develop medium-density apartment as the predominant form of housing in and near the City of Kapolei and around transit nodes on the planned rapid transit corridor between Waipahū and Kapolei.

**Density**

- Allow building density of 25 to 90 units per acre.

**Height**

- Limit building heights to not exceed 150 feet in the City of Kapolei and the Ko ‘Olina Resort and 90 feet elsewhere. Taller building heights are intended to allow higher densities, create variation in the cityscape, give a visual sign of transit nodes, and identify the City of Kapolei’s importance as a regional center.

**Architectural Character**

- Allow building scale, roof form and the quality of materials to reflect an urban character.

**Height Setbacks**

- Employ building height setbacks and landscaping to reduce the direct visibility of taller buildings from lower density residential areas and from the street front. Allow lower building elements to directly abut the street front.

**Circulation System**

Master-planned projects should each have a circulation plan or “circulation element” in their Project Master Plan (see Chapter 5).

**Connectivity**

- Use the circulation plan to define the hierarchy of streets within the project and its relationship to the surrounding transportation network.
- Use a modified grid street pattern (modified as necessary to fit the topography or other limitations) with block lengths of 300 feet by 500 feet or any combination of two sides summing to 800 feet. (See Exhibit 4.2 Street Network Guidelines.)



- Provide pedestrian pass-throughs or mid-block cross walks where blocks exceed 500 feet on a side.
- Connect new residential development to adjacent subdivisions to allow creation of an east-west and *mauka-makai* roadway network at approximately 1/4 mile intervals.

**Transit Routes and Facilities**

- Show existing and proposed bus routes and specific measures to accommodate efficient bus transit service for as many households as possible on the circulation plan.
- Design the rights-of-way along existing or potential bus transit routes to make provisions for bus shelters, bus pull-outs, and, if applicable, park-and-ride facilities and/or future rapid transit stations in accordance with department of transportation services design standards.
- Require street patterns showing the alignment of proposed or potential bus transit routes to be submitted to the department of transportation services as part of the subdivision roadway master plan review process.
- Design the circulation plan so that at least 85 percent of all residences will be within a five-minute (or 1/4 mile) walking distance of an existing or potential bus route or rapid transit stop, unless localized topographic conditions make such a requirement impractical.
- Design the circulation plan so that all commercial development with more than 1,000 square feet and all employment sites with more than ten employees are within 1/8 mile of a existing or potential bus or rapid transit stop.
- Design the circulation plan so that all development is within 1/2 mile of an existing or potential bus or rapid transit stop, unless localized topographic conditions make such a requirement impractical.
- Design the circulation plan so that potential bus transit routes have two different access points into the proposed development. The route alignment should seek to achieve optimal operational efficiency between the two access points.

**Pedestrian and Bicycle Routes and Facilities**

- Design the circulation plan to indicate any principal pedestrian and bicycle paths that are physically separated from roadways.
- Design street intersections along these separated paths to have a narrow curb radius and include special signage, and paving to encourage safe and convenient pedestrian and bicycle crossings.
- Allow interior mid-block pedestrian/bicycle routes to be provided as an alternative to paved sidewalks along local streets.

**Landscape Treatment**

- Include conceptual street tree plans in the circulation plan.
- Identify entries to the community with special landscape treatment.
- Design the rights-of-way for major and minor arterials as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. Major arterials should have separate bike paths, and minor arterials should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for minor arterials is 100 feet wide.
- Plant canopy trees to shade the sidewalk/bike path areas.
- Install landscape treatment along the edges of the project that is appropriate for the natural setting and designed to provide continuity and transition from adjacent developed areas.
- Use xeriscaping (the use of native landscape materials with low water demand), non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

**3.9.3 RELATION TO URBAN LAND USE MAP**

Residential areas are shown on the ‘Ewa Urban Land Use Map in Appendix A as follows:



**Residential and Low Density Apartment** - Areas with this designation should be zoned to allow residential or low density apartment uses, subject to appropriate siting considerations and the General Policy for “Overall Density” provided in Section 3.9.1.

**Medium Density Apartment** - Areas with this designation should be zoned predominantly for medium density apartment use. Mixed use, with retail activities at the ground level, is encouraged.

**City of Kapolei** – Areas within the City of Kapolei should be zoned for medium density apartment use. Mixed use with retail and office activities at the ground level and second floor should be encouraged.

The following uses are not specifically designated on the Urban Land Use Map, but are allowed in all residential areas:

- Neighborhood commercial centers;
- Elementary schools;
- Parks;
- Churches;
- Community centers;
- Elderly care centers;
- Child care centers;
- Fire stations; and
- Other public facility and utility uses serving the area.

All residential developments should be compatible with Aircraft Approach and Clearance Zones for Honolulu International Airport and Kalaeloa Airport.

### 3.9.4 RELATION TO ZONING

Table 3.5 provides guidelines for the zoning that may be appropriate to each of the land use designations indicated in the revised Development Plan.

It is intended for use as a reference, which would permit modification or creation of **Land Use Ordinance** zoning categories and land use regulations in response to changing conditions without needing to amend the Development Plan.

TABLE 3.5: GUIDELINES FOR APPROPRIATE ZONING	
Land Use Designation	Appropriate Zoning Districts
<b>Park, Golf Course, Preservation/Conservation Military Training Area</b>	P-2 if in State Urban or Agriculture District P-1 if in State Conservation District; otherwise P-2 F-1
<b>Agriculture</b>	AG-1 for all areas except where there is a predominant pattern of lots under 5 acres in size AG-2 for areas where lots are under 5 acres in size
<b>Residential and Low Density Apartment</b>	R-5, R-7.5, R-10 for conventional single-family subdivisions R-3.5 if identified by Project Master Plan for innovative small lot site design A-1 for low-rise flats, apartments, and townhouses A-2 if identified by Project Master Plan for medium density apartment development AMX-1, AMX-2 if within 1/4 mile of a transit node



**TABLE 3.5: GUIDELINES FOR APPROPRIATE ZONING**

<b>Land Use Designation</b>	<b>Appropriate Zoning Districts</b>
<b>Medium Density Apartment</b>	A-2, A-3 AMX-2, AMX-3 if within 1/4 mile of a transit node
<b>Commercial Centers</b>	B-2 with limits on floor area for office use for all types of centers except Neighborhood Commercial Centers B-1 for Neighborhood Commercial Centers (not shown on Urban Land Use Map) B2, BMX-3, Resort for the Ko ‘Olina Marina Mixed Use area
<b>Town Center</b>	B-2, BMX-3 A-1, A-2 I-1, IMX-1 in fringe areas where present use is predominantly service industrial
<b>Resort</b>	Resort
<b>Technology Park</b>	New zoning category designed specifically for this use; for interim, retain the existing IMX-1 and B-2 zoning with use limitations as specified in the UA.
<b>Industrial</b>	I-2 for heavy industrial areas in Barbers Point Industrial Area I-1, IMX-1 for service industrial areas near City of Kapolei and master-planned communities I-3 in vicinity of Barbers Point Deep Draft Harbor and of Hoakalei Marina

### 3.10 PLANNED COMMERCIAL RETAIL CENTERS

This section provides general policies and guidelines for the development of commercial retail centers in ‘Ewa.

These planned commercial centers differ from commercial areas within towns such as Waipahū or the City of Kapolei because they are typically managed as a unit with shared parking and centralized management.

**Definitions** - Four types of commercial centers can be defined based on size and function:

- **Neighborhood Commercial Center** - (5-10 acres or less, typically located within or adjacent to residential area, up to 100,000 square feet [sq. ft.] of floor area).
  - Neighborhood Commercial Centers have frontage on at least one collector street, and may have up to 100,000 square feet of floor area, which is leased to tenants such as grocery stores, sundries stores and other services and shops catering to common household needs.
  - Single commercial establishments, such as convenience stores or “Mom and Pop” stores, or groupings of stores smaller than five acres in size also fall within this category, provided that they are appropriately located and will not contribute to the evolution of a commercial strip.
- **Community Commercial Center** - (10-30 acres, typically located on an arterial highway or at the intersection of two major collector streets, up to 250,000 square feet of floor area).
  - This type of center principally serves the community in which it is located, providing for basic shopping and service needs on a larger scale than the neighborhood center.
  - Community Commercial Centers may contain up to 250,000 square feet of floor area, and major attractions typically include a large grocery store, a drug store, and both a department store. The other, smaller tenants in the center are largely dependent on the effectiveness of the major tenants to draw customers.
  - The Kapolei Shopping Center is an example of this type of commercial center.
- **Major Community Commercial Center** - (up to 50 acres, located in communities which are not near an urban center, up to 500,000 square feet of floor area); and
- **Regional Commercial Center** - (more than 50 acres, located with frontage on a major arterial highway and access from freeway interchange, more than 500,000 square feet of floor area).



- This type of center is typically “anchored” by several major stores and features a wide variety of other tenants, often including entertainment and community facilities.
- The regional center serves a broad arc of surrounding communities but also attracts business from throughout the island.
- Examples include Waikele, Pearlridge, and Kāhala Mall.

### 3.10.1 GENERAL POLICIES

- Develop planned commercial centers, outside of the City of Kapolei, to provide retail shopping and services for the ‘Ewa residential communities in which they are located.
- Develop commercial centers outside of the City of Kapolei by concentrating commercial uses in central locations instead of in continuous commercial strips along arterial roads.
- Emphasize pedestrian and transit access to and within the centers.
- Permit multi-family residential use above the first floor and include it wherever possible in commercial centers.
- Wherever possible, design new commercial centers to help create or both support pedestrian-friendly village centers, town centers, or “Main Street” areas for their communities.
  - Such centers or Main Streets provide a place where people from the surrounding neighborhoods gather, shop, dine, or play and are a key element that defines a community’s identity.
- Limit development of Major Community Commercial Centers or Regional Commercial Centers to the City of Kapolei since the City of Kapolei is intended to provide for most regional shopping needs.  
 [Note: The Department of Hawaiian Home Lands has notified the department of planning and permitting that it has exempted itself from City and County planning and zoning to develop a 1.6 million square foot Regional Shopping Center on 67 acres near the intersection of Kualaka‘i Parkway (the former North-South Road) and Kapolei Parkway. Included in the project are two hotels with 300 rooms and two office towers with 100,000 square feet of office space.]
- Allow Neighborhood Commercial Centers to be located within any residential community, and to be reviewed and approved as part of development of master planned residential communities or redevelopment of existing communities.
- Allow Community Commercial Centers at ‘Ewa Beach, Laulani, Ho‘opili (near the intersection of Farrington Highway and Kunia Road), East Kapolei (near the intersection of Farrington Highway and the Kualaka‘i Parkway and near the intersection of Kapolei Parkway and the Kualaka‘i Parkway), the Villages of Kapolei, Makaīwa Hills, and Ko ‘Olina Marina as shown on the Urban Land Use Map in Appendix A.
- Allow medium density mixed use commercial development within a quarter-mile radius of proposed transit stations on the rapid transit corridor linking Waipahū with the City of Kapolei/Kapolei West.
- Restrict office uses as a principal use in ‘Ewa Community Commercial Centers. Offices that provide services to the local community may be included in the centers, but the emphasis should be on retail uses. Offices providing support to functions of the University of Hawai‘i West O‘ahu may be included in the Transit Oriented Development areas around the two transit stations closest to the campus. Locate developments primarily oriented to office uses in the City of Kapolei.

### 3.10.2 GUIDELINES

The following guidelines suggest how the general policies for Planned Commercial Retail Centers should be implemented.



## **All Commercial Centers**

### **Orientation to “Main Street” or the Town/Village Center**

- Structures in the commercial center should be located and oriented to the street up to the “build to” line along the designated “Main Street” or Town/Village Center frontage.
- Most parking for commercial structures fronting “Main Street” or the Town/Village center should be located behind the structures in joint development parking lots or structures although some on-street parking can be provided on the Main Street or Town/Village Center frontage.
- The main entrance to commercial structures fronting the “Main Street” or Town/Village Center should be located on that street frontage with secondary entrances from parking areas.
- Sidewalks in front of retail uses fronting the “Main Street” or Town/Village Center should be wide enough (12 to 16 feet) to allow window shopping or outdoor dining.

### **Mix of Uses**

- Plan commercial centers primarily for retail uses and for office uses that provide services to the surrounding community. Residential uses may also be incorporated in such commercial centers.

### **Appropriate Scale**

- Design the building mass of the commercial center to be in keeping with its urban and natural setting.

### **Compatible Style**

- Design the architectural character of commercial centers to respect the surrounding urban and natural features, particularly when located adjacent to a residential area or significant natural or historic feature. Neighborhood commercial centers should reflect a residential architectural character.

### **Accessibility**

- Incorporate site design and facilities to promote pedestrian, bicycle and transit access in commercial centers. Pedestrian and bicycle access is more important for smaller, neighborhood centers, while transit access is more significant for community centers. Apply these designs and facilities to the expansion or renovation of existing commercial centers, as well as to new centers.

## **Neighborhood Commercial Centers**

### **Architectural Character**

- Design the project architecture to respect the character of adjacent residential uses.
- Use gable and hip-form roofs to create breaks in the roofline to reduce the apparent scale of large roof plates.
- Use exterior materials and colors that are typically found in neighborhood houses.

### **Building Siting**

- Orient buildings to the pedestrian.
- Orient storefronts to face the street and to the extent possible, be sited close to the sidewalk.
- Place parking and service areas behind the buildings or otherwise visually screened from streets and residential areas.

### **Building Height and Density**

- Design buildings at a residential scale.
- Allow building height limits which allow for gable and hip-form roof elements.
- Limit total floor area for a lot or contiguous lots with common parking to no more than 100,000 sq. ft.



**Vehicular Access**

- Provide access to the parking and loading areas from a collector street.
- Permit access to a local residential street only if it is for emergency or secondary access and would not encourage through traffic along the local street.

**Pedestrian and Bicycle Facilities**

- Provide at least one pedestrian access from the public sidewalk or other off-site pedestrian pathway to the entrances of establishments in the commercial center that does not require crossing a traffic lane or parking lot aisle or driveway.
- Design bicycle racks for security, convenience, and visibility from the street entry.
- Provide appropriate signage to indicate the availability and location of bicycle racks.

**Visual Screening, Lighting and Signage**

- Screen parking and service areas from the street and adjacent residential lots by planting a landscape screen of trees and hedges along street frontages and property lines and by planting shade trees throughout the parking lot.
- Use xeriscaping (the use of native landscape materials with low water demand), non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.
- Use only low-level or indirect lighting in parking lots.
- Require all signage to either be nonilluminated or indirectly illuminated.

**Community Commercial Centers**

**Architectural Character**

- Allow varied architectural character, depending on the context.
- Require commercial center buildings that are visible from adjacent residential areas to reflect a residential character while allowing other facades to have a character more typical of a commercial building.
- Avoid disruptive contrasts between facades and extended blank walls that are visible simultaneously from public areas.

**Building Bulk and Massing**

- Provide a transition in scale from larger building elements of the commercial center to finer elements near the adjacent use when the building is adjacent to a residential area or a building of historic value.
- Avoid blank facades on portions of buildings visible from a street by using texture, articulation, color, and fenestration to create visual interest.
- Require facades that are close to the public right-of-way to be composed of display windows and pedestrian entrances.

**Building Height and Density**

- Limit building heights to generally not exceed 45 feet.
- Limit total floor area to no more than 250,000 square feet for a standard Community Commercial Center.

**Pedestrian, Bicycle, and Transit Facilities**

- Provide street frontage improvements for bus stops, including a bus shelter and a pull-out off a traffic lane, along all abutting streets that have bus routes.
- Provide a pedestrian pathway from the bus stop to an entrance to the main building of the commercial center. The pathway should be clearly indicated with special paving or markings and covered to provide weather protection, if the commercial center building is not directly connected to the bus shelter.



- Design bicycle racks to provide security and be visible from the street entry to the commercial center.
- Provide appropriate signage to indicate the availability and location of bicycle racks.

**Visual Screening**

- Minimize the visibility of parking and service areas from the street and adjacent residential areas through screening.
- Plant a landscape screen, consisting of trees and hedges, along the street fronting the parking lot or garage.
- Plant shade trees throughout all parking lots.
- Use xeriscaping (the use of native landscape materials with low water demand), non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.
- Provide landscape planters along the facade of each parking level for parking garages close to and readily visible from a street.
- Visually screen service areas from public and residential areas.

**Signage**

- Indirectly illuminate signage visible from residential areas.

**Regional Commercial Centers**

**Architectural Character**

- Use architectural elements to establish a visual identity and design theme, especially when the theme reflects a cultural, historical, or geographical feature of the area.
- Include public areas to provide for performances and cultural events.

**Building Bulk and Massing**

- Use varied elevations and building axis to visually differentiate building volumes.
- Avoid blank facades on portions of buildings visible from a street by using texture, articulation, color, and fenestration to create visual interest.
- Require facades that are close to the public right-of-way to be composed of display windows and pedestrian entrances.
- Site buildings to physically define separate sections for parking areas to provide visual relief and easily identifiable references for customers returning to parked vehicles.

**Building Height and Density**

- Limit building heights to generally not exceed 60 feet, but permit heights up to 90 feet for architectural features expressing a design theme.
- Limit the floor area ratio to no more than 2.0.

**Use Allocation**

- Limit office and entertainment uses. Office uses should not exceed five percent and entertainment/recreation uses should not exceed 15 percent of gross leasable area.

**Pedestrian, Bicycle, and Transit Facilities**

- Locate public bus facilities on the grounds of the center, but allow reduction in the number of parking spaces to offset the cost of providing the easement and improvements on-site.
- Directly connect the bus stops to the commercial center’s main structure via a covered pedestrian walkway.
- Include well-defined walkways at regular intervals in parking lots to minimize conflicts between pedestrians and moving vehicles.



- Provide appropriate signage to indicate the availability and location of bicycle racks.

#### **Visual Screening**

- Plant a landscape screen, consisting of trees and hedges, along parking lot street frontages.
- Plant shade trees throughout all parking lots.
- Provide landscape planters along the facade of each parking level for parking garages close to and readily visible from a public right-of-way.
- Use xeriscaping (the use of native landscape materials with low water demand), nonpotable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.
- Locate or screen loading and other service areas so that they are not visible off-site.

### **3.11 KO ‘OLINA RESORT**

The **‘Ewa Development Plan** prior to 1997 included specific development objectives, planning principles, and standards for Ko ‘Olina Resort, under its former name of West Beach. The Unilateral Agreement to the 1986 zoning ordinance for the Resort includes detailed conditions regarding the master plan of the resort, building design, design of the public shoreline area, and public access to the shoreline.

Development of the Resort can proceed based on the existing zoning and Unilateral Agreement. This section incorporates key elements for Ko ‘Olina from the former Development Plan and the Unilateral Agreement.

Ko ‘Olina Resort is designated in the **General Plan** as one of four “secondary” resort destinations, which are part of an overall strategy to relieve growth pressure on Waikīkī. The resort is located on 640 acres between Kahe Point Beach Park and the Kalaeloa Barbers Point Deep Draft Harbor. When developed, Ko ‘Olina Resort should be a water-oriented residential and resort community with at least 4,000 visitor units in hotels and resort condominiums and 5,200 residential units.

Ko ‘Olina is master-planned to incorporate recreational features in addition to visitor accommodations. Recreational facilities include a golf course, a small boat marina, and four man-made swimming lagoons. Development of the golf course and the swimming lagoons, and installation of roads and utilities are completed.

The first hotel opened in 1993 with almost 400 rooms. The first phase of a 750 unit time-share resort began construction in 2001, and by September 2009, over 500 units had been completed. Construction of a third 800 unit hotel/time-share project began in 2008. In addition, over 1,100 homes, second homes, and resort condominiums have been built and sold in recent years.

#### **3.11.1 GENERAL POLICIES**

- Develop Ko ‘Olina Resort as an integral part of the Secondary Urban Center.
- Develop Ko ‘Olina to provide substantial waterfront areas for public use. The entire shoreline should be natural open space, softened by landscaping, and should focus on the beach and swimming lagoons.
- Design the built environment to avoid adverse impacts on natural resources or processes in the coastal zone.

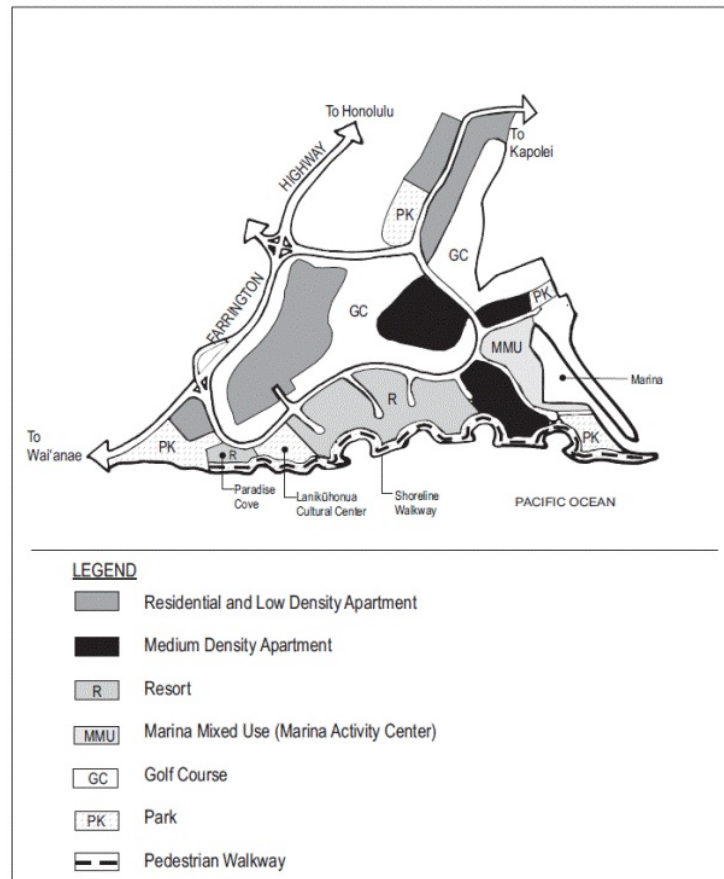
#### **3.11.2 KO ‘OLINA LAND USE MAP**

The Ko ‘Olina Land Use Map, Exhibit 3.6, shows land uses and a schematic view of the roadway system within the Ko ‘Olina Resort. Land uses include the following:



- **Resort** - Resort sites are located along the shoreline and should have hotels, apartments, and accessory commercial and recreational facilities for resort use. The Lanikūhonua Cultural Center, located at the northern end of the resort area, should be principally open space with accessory structures as needed to support the cultural center use. The Paradise Cove site, located between Lanikūhonua and the park, should be used for resort commercial purposes.
- **Medium Density Apartment** - Medium density apartment uses are located along the shoreline between Maui Place and Waipahē Place and near the Marina Activity Center.
- **Marina Mixed Use** - The Marina Activity Center is located in this area and should have a mix of commercial and high-density residential uses with Business Mixed Use (BMX) or Resort zoning.
- **Residential and Low Density Apartment** - Two residential and low density apartment areas are located within and adjacent to the golf course.

**Exhibit 3.6**  
**Ko ‘Olina Land Use Map**



### 3.11.3 GUIDELINES

The following guidelines suggest how the general policies for Ko ‘Olina Resort should be implemented:



**Urban Form**

- **Appropriate Scale and Siting** - Minimize the visibility of large building volumes and elements from waterfront and residential areas through building envelope restrictions, site planning, and landscaping.
- **Marina Activity Center** - Establish a higher density, centrally located hub adjacent to the marina to serve as the activity center for the community and as an attraction that enhances Ko 'Olina's role as a secondary resort destination area for O'ahu.
  - Permit commercial mixed use development in the area generally bounded by the park at the fourth lagoon, Waipahē Street, Ali'inui Drive, Kekai Place and the marina. This area should consist of marina frontage with public promenade, commercial mall, and low and medium density apartment developments.
  - Limit marina frontage generally to a height limit of 40 feet.
  - Require buildings taller than 40 feet to be set back from the marina frontage.
  - Allow variations in the amount of setback to add visual interest.
  - Limit medium density apartment buildings and commercial buildings in this area to generally not exceed 150 feet.
- **Medium Density Apartment Area** - Two additional medium density apartment areas are located on Kekai Place and on Ali'inui Drive. Limit building heights in these areas to generally not exceed 150 feet.
- **Resort Center** - Allow development of a resort destination area containing at least 4,000 visitor units in the area designated for Resort use on Exhibit 3.6. Limit hotel and apartment buildings in this area to generally not exceed 150 feet.
- Limit building heights at Lanikūhonua and Paradise Cove to no more than 40 feet in height.
- Encourage compatibility of uses and design integration at the boundaries separating different use areas.
- Prohibit designation of land within 1/2 mile of the centers of petroleum and explosives terminals at the Kalaeloa Barbers Point Deep Draft Harbor for Resort, Apartment, Residential, or Commercial use.

**Natural Environment**

- Locate and operate uses that generate high noise levels in a way that keeps noise to an acceptable level in existing and planned residential areas.
- To retain a sense of place, design the resort and recreation areas to incorporate natural features of the site and utilize landscape materials that are indigenous to the area where feasible.
- Set back all structures a minimum distance of 300 feet from the shoreline. Lesser (or greater) setbacks may be permitted upon design review and approval by the Department of Planning and Permitting.
- Protect the existing coastal environment against potential negative impacts associated with increased recreational use and public access to the shoreline.
- Discourage further modification to the shoreline, including the man-made lagoons, unless required either to meet the conditions of existing approvals or to address demonstrated deterioration to the quality of coastal resources.

**Shoreline Access**

- Provide a continuous public walkway along the entire shoreline fronting the resort, anchored at either end by public beach parks. Public access should be provided along the shoreline fronting Lanikūhonua and Paradise Cove, but not in as formal a manner as that provided on the shoreline frontage of the adjacent hotel, apartment, and commercial Ko 'Olina resort sites.
- In addition to the public parks at each end of the resort, provide a series of privately-owned and maintained parks encompassing a minimum of 20 acres of land along the shoreline. These private parks should be open to use by the general public and accessible from the continuous shoreline public walkway.
- Provide a public access easement, parking lot, restrooms, and showers at each of the four swimming lagoons.



### Views and Vistas

- Although the design of Ko ‘Olina may have a distinct identity and entry, link Ko ‘Olina with surrounding areas through the use of connecting roadways, walkways, landscape, or architectural design.
- Preserve and enhance views from public streets and thoroughfares to the mountains and sea wherever possible.
- Orient hotel, commercial, and apartment buildings perpendicular to the shoreline to maximize *mauka* and *makai* views.
- Protect important views of landforms along the Wai‘anae Coast, the ridgeline of the Wai‘anae Range, and the ocean including but not limited to the following:
  - *Makai* view from Farrington Highway at the entrance to Ko ‘Olina,
  - *Makai* view from Ko ‘Olina coastal roadways *makai* of Farrington Highway,
  - Views of the Wai‘anae Coast from the shoreline at Ko ‘Olina, and
  - *Mauka* and lateral views of Ko ‘Olina from the Small Boat Harbor and the Deep Draft Harbor.
- Allow variation in building heights near the shoreline and along the marina frontage, particularly to preserve long views and minimize the perception of building bulk from the shoreline, beach, and marina frontage.

### Circulation System and Transportation Facilities

- Establish an integrated bikeway and pedestrian circulation network throughout the resort, with bicycle lanes and routes and sidewalks along major roadways, lined with shade trees.
- Reserve the OR&L right-of-way for a bikeway and historic railroad train service for historic and educational rides between Nānākuli, Ko ‘Olina, Kapolei, and ‘Ewa Villages, and for a bikeway continuing on from ‘Ewa Villages to Waipahū and ‘Aiea as part of the Pear Harbor Historic Trail.

### Landscape Treatment

- Provide generous landscaped open spaces throughout the resort area to promote tropical beauty and provide visual relief and a feel of spaciousness.
- Use landscaping to provide continuity between residential, resort, marina, and commercial areas and the recreational areas at the shoreline, parks, and golf courses.
- Use landscaping to enhance and preserve view corridors and provide privacy, screening, shade, and comfort.
- Use xeriscaping (the use of native landscape materials with low water demand), nonpotable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

## 3.12 INDUSTRIAL CENTERS

This section provides general policies and guidelines for development of industrial centers and industrial uses in ‘Ewa.

Industrial centers in ‘Ewa include the Barbers Point Industrial Area, Kalaeloa, Honouliuli Industrial Area, Kahe Valley, and an area near the Hoakalei marina.

Barbers Point Industrial Area includes Campbell Industrial Park, Kalaeloa Barbers Point Deep Draft Harbor, Kenai Industrial Park, Kapolei Harborside, and Kapolei Business Park. It is the site of the State’s largest heavy industrial area (Campbell Industrial Park) and an important industrial harbor and fuel transfer point.

The Barbers Point Redevelopment Commission approved continuation of the airport at Kalaeloa to provide a reliever airport for Honolulu International Airport, and a site for general aviation operations. As a result, the Pacific Aerospace Training Center, a program of the Honolulu Community College, was established to provide flight training for Hawai‘i, Mainland, and international students. A number of opportunities for aviation-oriented industrial and training developments associated with the Center have been identified.



In 2002, the State Legislature transferred redevelopment responsibility for Kalaeloa to the Hawai'i Community Development Authority (HCDA). The HCDA prepared a Master Plan for redevelopment of Kalaeloa. The Master Plan (approved in 2006) identifies lands capable of providing over two million square feet of light industrial floor space.

Honouliuli includes 44 acres of land zoned industrial/commercial mixed use in the 'Ewa by Gentry project, the 49-acre Honouliuli Wastewater Treatment Plant, and the 72-acre 'Ewa Industrial Park zoned for intensive industrial uses.

### 3.12.1 GENERAL POLICIES

- Maintain industrial activity at Barbers Point Industrial Area, Kalaeloa, Honouliuli Industrial Area, and Kahe Valley and permit industrial activity at other dispersed industrial areas, as noted below.
- If a major film studio is developed within industrial areas in 'Ewa, allow accessory uses, such as film production offices, a "back lot" area with commercial uses, and visitor attractions. Overnight accommodations for film crews are allowable as an accessory use to a major film studio.

#### Barbers Point Industrial Area/Kalaeloa

- Maintain the Barbers Point Industrial Area as one of O'ahu's and the State's most important industrial areas.
- Allow construction of an additional electrical power generating plant at the Barbers Point Industrial Area, possibly taking advantage of cogeneration opportunities with other industrial activities. The 138 kilovolt transmission corridor running from the Barbers Point Industrial Area to Waiau could accommodate additional load on the existing poles.
- Develop the northern parts of Kapolei Business Park, Kapolei Harborside, and any Kalaeloa lands designated for industrial use for light industrial uses or compatible commercial uses as a transition between heavy industry at Campbell Industrial Park and the City of Kapolei.

#### Honouliuli Industrial Area

- Develop Honouliuli as a smaller industrial area, used for wastewater treatment and for light industrial and industrial-commercial mixed uses to serve the surrounding communities.
- Allow a power generation facility to be included if it is dependent on wastewater treatment operations and can be designed so that it is generally not visible from nearby major public rights-of-way, residential areas, and commercial areas.
- Expand the Honouliuli Wastewater Treatment Plant to accommodate additional growth in the region as well as to provide additional facilities for higher levels of wastewater treatment.

#### Other Industrial Areas

- Allow **service-oriented industrial uses** throughout the region as noted below. Uses requiring larger lots should be located in Campbell Industrial Park. Small-lot uses, including automobile repair shops, contractor's yards, and businesses serving residential and commercial areas, should be allowed to locate near the City of Kapolei in the Kapolei Business Park and on any industrial lands which may be designated within Kalaeloa.
- The **Hawaiian Electric Company generating plant** in Kahe Valley is and should remain the largest source of electrical power on O'ahu. Allow the plant to be expanded to take advantage of available land area, cooling system capacity, and power transmission lines, if needed.
- Allow development of the **industrial area planned for the western edge of Ocean Pointe** to accommodate marine haul-out facilities, repair shops, and related small boat industrial uses.



**3.12.2 GUIDELINES**

The following guidelines suggest how the general policies for Industrial Centers should be implemented.

**All Industrial Areas****Appropriate Scale**

- Minimize the visibility of large building volumes and tall building or machinery elements from resort areas, residential areas, commercial and civic districts, and parks through site planning and landscaping.

**Environmental Compatibility**

- Locate industries and utilities that discharge air or water pollutants, even when treated, in areas where they would impose the least potential harm on the natural environment in case the treatment process fails to perform adequately.
- Locate and operate uses that generate high noise levels in a way that will keep noise to an acceptable level in existing and planned residential areas.
- Use xeriscaping (the use of native landscape materials with low water demand), nonpotable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

**Barbers Point Industrial Area****Coastal Environment**

- Set back all buildings a minimum of 60 feet from the shoreline and 150 feet where possible if justified based on historic and projected shoreline erosion data.
- Provide a lateral public access easement along the entire shoreline from the Kalaeloa/Barbers Point Deep Draft Harbor to Kalaeloa.
- Continue to provide the major entry point to the shoreline easement at the Barbers Point beach park and lighthouse area.
- Provide at least one additional minor access, similar to the one at Kenai Industrial Park, at the drainage channel next to Kalaeloa.
- Provide access at other points where public parking on the street is available.

**Building Height and Mass**

- Limit building heights generally not to exceed 60 feet when they consist of large mass.
- Allow taller, vertical structures when required as part of an industrial operation, but require a view plane study to be conducted for structures over 100 feet in height to determine if they can be sited or designed to minimize visibility from residential, resort and commercial areas, public rights-of-way, and the shoreline.

**Use Allocation**

- Allow small lots to be provided within the Kapolei Business Park and Kapolei Harborside as sites for small business service uses.

**Landscape Treatment**

- Require the planting of a landscape screen, consisting of trees and hedges, along street frontages to minimize the visibility of parking, storage, industrial equipment, and operations areas from the street.
- Require special landscape treatment for streets leading to the shoreline access points.



**Honouliuli Industrial Area****Building Height and Mass**

- Limit building heights to generally not exceed 60 feet, especially for buildings of large mass.
- Allow taller, vertical structures when required as part of an industrial operation, but require a view plane study to be conducted for structures over 100 feet in height to determine if they can be sited or designed to minimize visibility from residential, resort and commercial areas, major public thoroughfares, and the shoreline.

**Roadway Setbacks**

- Require wastewater treatment structures to be at least 300 feet from the proposed alignments of the Kapolei Parkway, and the Kualaka'i Parkway. Setbacks for other industrial uses should be as given in the zoning standards.

**Landscape Treatment**

- Require the planting of a landscape screen, consisting of trees and hedges, along street frontages to minimize the visibility of parking, storage, industrial equipment, and operations areas from the street.

**Other Industrial Areas****Separation of Use Areas**

- Allow small industrial lots (10,000 sq. ft. or less) for repair services and “incubator” businesses to be located near the commercial core of the City of Kapolei, but not on the principal commercial streets.
- Locate warehousing and other industrial uses requiring larger lots in industrial parks.

**Landscape Treatment**

- Require use of privacy walls and buildings, with minimal use of landscaping to visually screen small-lot industrial areas, outdoor work and storage areas for vehicles, equipment and supplies from the street and adjacent lots.
- Require use primarily of landscaped setbacks and street trees to provide visual screening in large-lot industrial subdivisions.

**3.12.3 RELATION TO URBAN LAND USE MAP**

Industrial zoning should generally be limited to those areas shown as “Industrial” on the Urban Land Use Map in Appendix A, provided that industrial zoning may be granted for an individual activity which, because it is a public transportation or utility use or because of its unique characteristics, is unable to locate in a planned industrial area.

Heavy industrial uses should be located at Campbell Industrial Park, transitioning to lighter industrial uses closer to the City of Kapolei.

**3.13 KALAELOA**

Kalaeloa (formerly Barbers Point Naval Air Station) is designated as a Special Area within the ‘Ewa Development Plan Area because of the need to provide strategies for the redevelopment of the area, to coordinate the activities of the many private, City, State, and Federal agencies involved in the area, and to coordinate redevelopment of Kalaeloa with the development of the rest of ‘Ewa.



In 1999, the Barbers Point Naval Air Station was closed, and the process of transferring the Navy lands to civilian control for public benefit began. Approximately 1,050 acres was retained by the Navy, and 457 acres were transferred for use by various other Federal Agencies. The balance of 2,180 acres were declared surplus and made available for transfer to various State and City agencies for public use. Table 3.6 lists the acreage retained by Federal agencies, acreage under negotiation for conveyance, and the acreage which has been transferred to City and State agencies.

The **Kalaeloa Redevelopment Plan** was prepared for Kalaeloa in December 2000 by the Barbers Point Naval Air Station Redevelopment Commission and accepted as the **Kalaeloa Special Area Plan** by the City Council (Res. 01-86, April 2001).

In July 2002, the State Legislature transferred responsibility for Kalaeloa to the Hawai‘i Community Development Authority (HCDA). HCDA prepared a **Kalaeloa Master Plan** for redevelopment of Kalaeloa that was approved by the HCDA Board and the Governor in 2006. The **Master Plan** identifies the need to upgrade all major infrastructure systems (roads, drainage, water supply and wastewater) to City standards in order to support the substantial residential, retail, office and industrial development envisioned in the **Master Plan**. The **Master Plan** should be submitted for acceptance by the City Council as the Special Area Plan for Kalaeloa, replacing the 2000 **Kalaeloa Redevelopment Plan**.

TABLE 3.6: KALAELOA LAND CONVEYANCE STATUS (in acres)				
AGENCY	PROPOSED USE	ACREAGE		
		retained	conveyed	pending
U.S. Navy	Golf Course, Horse Stables, two beach parks, Landfill, Public Works Center, and Defense Reutilization and Marketing Office	437	0	0
Ford Island Properties	Lands brokered for Ford Island Development	0	492	0
U.S. Coast Guard	Air Wing Headquarters	0	44	14
U.S. Federal Aviation Agency	Navigational Aid Beacon	0	18	0
U.S. Fish & Wildlife	Pearl Harbor National Wildlife Refuge	0	37	0
U.S. Veterans Affairs	Homeless Assistance and Social Services	0	7	0
U.S. Postal Service	Existing Post Office	0	1	0
Hawai‘i National Guard	Consolidated Headquarters & Operations	0	148	0
State DOE	Barbers Point Elementary School	0	14	0
State DHHL	Leases for commercial and industrial purposes	0	556	0
State HCDA	Kalaeloa Heritage Park	0	77	19
State HHFDC	Holo Loa‘a Shelter	0	12	0
State DOT	Kalaeloa (John Rodgers) Airport	0	752	53
State DOT	Various Roads	0	91	0
UH Honolulu CC	Pacific Aerospace Training Center	0	6	0
City BWS	Reverse Osmosis Facility	0	20	0
City DTS	Various Roads	0	66	0
City Parks & Recreation	Kalaeloa Regional Park, Kalaeloa Downtown Neighborhood Park	0	0	421
Ford Island Housing LLC	On-Station Housing	0	53	0



TABLE 3.6: KALAELOA LAND CONVEYANCE STATUS (in acres)				
AGENCY	PROPOSED USE	ACREAGE		
		retained	conveyed	pending
Carmel Partners	Orion, <i>Makai</i> , and Orion Park Housing	0	73	0
State HCDA	Unallocated <sup>(1)</sup> Parcels	0	0	259
Unallocated <sup>(1)</sup>	Roads and Easements	0	0	26
<b>TOTAL</b>		<b>437</b>	<b>2,467</b>	<b>792</b>
Notes:				
<sup>(1)</sup> Lands originally assigned to agencies that subsequently withdrew their interest in receiving the lands.				
<b>SOURCE:</b> Hawai'i Community Development Authority, "Table 2-1: Kalaeloa Land Conveyance Status," <u>Kalaeloa Master Plan</u> (March 1, 2006) and agency updates as of May 2011.				

### 3.13.1 GENERAL POLICIES

- Use Kalaeloa's redevelopment as an opportunity to integrate the circulation system and land use pattern of the 'Ewa Plain.
- Develop a major new regional public park, and provide continuous lateral public access along the shoreline at Kalaeloa.
- Create a continuous pedestrian route along most of the 'Ewa Coast by reserving the entire shoreline of Kalaeloa for public access and recreation, and linking to adjacent pathways in Ocean Pointe/Hoakalei and Campbell Industrial Park.
- Require building setbacks from the shoreline.
- Integrate the road network within Kalaeloa with the regional circulation system for all of 'Ewa to provide additional ways for residents and workers to cross 'Ewa from east to west and north to south.
- Provide ample lands within Kalaeloa devoted to uses that will create long-term jobs for 'Ewa's residents.

### 3.13.2 GUIDELINES

The following guidelines suggest how the general policies for Kalaeloa should be implemented:

- Develop a major regional park at Kalaeloa that provides beach recreation and support facilities near the shoreline, other active recreation facilities in *mauka* areas, and preserves for archaeological and cultural resources, wildlife habitat, wetlands, and endangered plant colonies.

#### Coastal Environment

- Require a minimum building setback of 60 feet and a lateral public access easement along the entire shoreline, with the entry point at the former military beach recreation center. Where possible, the setback should be expanded to 150 feet where justified by historic or adopted projections of shoreline erosion rates.
- Connect the Kalaeloa shoreline access easement to shoreline access easements at the Barbers Point Industrial Area to the west and to public pedestrian pathways at Ocean Pointe/Hoakalei to the east.

#### Separation of Use Areas

- Design the road pattern and use landscape buffers to separate and distinguish military support housing, airport/industrial facilities, and recreation/wildlife areas from one another.

#### Appropriate Scale

- Use site planning and landscaping to minimize the visibility of large building volumes and elements from residential areas, commercial and civic districts, and public rights-of-way and parks.



**Circulation System and Transportation Facilities**

- Design the circulation system to include major roadways connecting the City of Kapolei to the shoreline recreation center and Ocean Pointe/Hoakalei.
- Upgrade the road system to allow bus stop facilities to be provided at the airport, military housing area, and shoreline recreation area.

**Landscape Treatment**

- The visibility of parking, storage, and airport/industrial operations from the street should be minimized through the planting of a landscape screen, consisting of trees and hedges, along street frontages.
- Require streets connecting the City of Kapolei to Ocean Pointe/Hoakalei and the shoreline recreation areas to receive special landscape treatment.
- Use xeriscaping (the use of native landscape materials with low water demand), nonpotable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.

**3.14 PEARL HARBOR NAVAL BASE (WEST LOCH)**

The West Loch Annex of the Pearl Harbor Naval Munitions Command is proposed to be the principal site where U.S. Department of Defense ordnance handling and storage for O‘ahu is consolidated. The existing Explosive Safety Quantity Distance (ESQD) arc at West Loch will remain, but would not need to be enlarged. City general policies for these areas are:

- Expand limited public access to the shoreline waters of West Loch beyond the West Loch Shoreline Park.
- Retain and enhance wetland wildlife habitat areas along the Pearl Harbor shoreline.

**3.15 UNIVERSITY OF HAWAI‘I WEST O‘AHU**

This section contains general policies and guidelines for development of the University of Hawai‘i West O‘ahu.

In 1997 when the revised **‘Ewa Development Plan** was adopted, the University of Hawai‘i West O‘ahu campus was planned to be developed on a 991-acre site *mauka* of the H-1 Freeway. In 2004, the Board of Regents decided to move the site of the initial University of Hawai‘i West O‘ahu (UH WO) campus back to a 500 acre parcel at the *makai*-Wai‘anae corner of the Kualaka‘i Parkway – Farrington Highway intersection. A large portion of the *makai* campus lies within the Kalo‘i Gulch watershed.

The City Council approved a zone change allowing development of a campus and a mixed use community within the 500-acre *makai* site in 2008. The 2010 State Legislature approved \$48 million in bond financing, allowing construction of the first phase of the campus to begin in the fall of 2010 with first classes on the new campus planned for the Fall of 2012. The University is currently evaluating options for the development of the adjacent residential and residential-commercial mixed use lands, and plans to sell 15 acres to finance a portion of the first phase construction.

The *mauka* site still remains part of the UH WO lands and could be used in the future for university and university-related uses.

Projected size is 4,600 students by 2019, and 7,600 students by 2025. The projected 2025 faculty and staff is 1,040.



### 3.15.1 GENERAL POLICIES

- Develop the campus to be environmentally and culturally sensitive to the site and reflective of the Hawaiian culture and of the heritage of ‘Ewa.
- Develop the campus in combination with an adjacent University Village to evoke a unique sense of place that distinguishes it as an important civic and cultural institution in ‘Ewa.
- Provide direct vehicle access to the campus from both Farrington Highway and Kualaka‘i Parkway.
- Orient the campus to support pedestrian access to and transit usage from two rapid transit stations, one located near the corner of Farrington Highway and Kualaka‘i Parkway, and a second located on the Kualaka‘i Parkway midway between Farrington and Kapolei Parkway.
- Design the campus to use open space areas for flood detention and retention as part of the Kalo‘i Gulch watershed master plan.

### 3.15.2 GUIDELINES

#### Place Making

- Establish a clear identity and “sense of place” for the main campus through attentive design and careful integration with the adjacent mixed-use commercial area referred to as “University Village”. Major campus buildings surrounding the Great Lawn should serve as one anchor for the University Village “main street” commercial/residential area anchored at the other end by a major transit station near the *mauka* entry from Kualaka‘i Parkway (in the vicinity of the Farrington/Kualaka‘i Parkway intersection).

#### Regional Integration

- Design the campus and surrounding mixed-use/residential community to function as a fully integrated community within the context of the broader regional community. The campus and surrounding community should include housing, support services, community and business facilities, in addition to the required academic facilities.

#### Community Orientation and Service

- Design the campus to be community-oriented and to serve the Kapolei area and West O‘ahu as an urban park and cultural center, providing community services, and cultural opportunities.

#### Functional and Accessible Design

- Design the campus to reflect appropriate functional relationships, internal compactness, and accessibility between academic functions and supporting facilities, providing a pleasant and efficient study environment.

#### Drainage Impacts

- Incorporate flood detention and retention capability in the campus open space system in order to reduce the downstream impact of major storm events. For example, sports playing fields could be designed to act as flood detention basins during major storm events.
- Design the drainage plans for the campus so as to not increase stormwater flows or velocity above the design levels used in designing the water retention areas of the ‘Ewa Villages Golf Course and the drainage systems for earlier developments in the Kalo‘i Gulch watershed.

#### Architectural Forms

- Site and design specific activity areas and structures to accommodate required internal academic or support relationships. This would include siting of buildings or facilities to promote academic continuity, provide



spatial definition to public areas, and allow easy access to needed support areas (housing, business/food services, recreation, and parking).

- Design buildings and structures to reflect sensitivity to the local environmental conditions, as well as to Hawaiian regional styles.
- Avoid use of structures which visually dominate the site unless required to carry out the building’s function. Rather, low-rise academic structures with more emphasis on regional architectural forms and human scale should prevail.

**Landscape Forms**

- Use trees and other landscape materials throughout the campus to provide welcome shade and visual relief.
- Use street trees and accent plantings to feature gateways, define circulation corridors, or enhance special activity areas. The intensity or selection of landscape treatments should be used to further define, identify, or buffer various campus land uses.
- Use landscape materials which reflect climate conditions, limited water resources, and maintenance issues.
- Use native/indigenous species in landscape treatments to the greatest extent possible.

**Circulation**

- Design circulation patterns to provide for easily accessed routes to, within, and around the campus. Minimize conflicts between cars, bikes, and pedestrians.
- Highlight the hierarchy of roadway, bikeway, and pedestrian circulation patterns by use of a distinctive design treatment for each element of the system or other appropriate method.
- Use appropriate site design and placement to minimize visual impacts from vehicle corridors and parking lots.
- Make provisions for public transportation with ties to the regional system and transit corridor an integral part of the campus plan.

**Open Space/Views**

- Integrate and blend open space components throughout the campus in the form of passive landscape areas, courtyards, mall spaces, and multi-purpose recreation fields or community spaces.
- Link the internal campus open space system with the adjoining regional open space systems of the adjacent developments.
- Develop campus gateways and enhance internal view corridors as an integral part of the open space elements within the campus.
- Preserve and enhance *mauka-makai* views within major open spaces and through building siting.
- Use landscape treatments or building design to visually buffer between conflicting or unsightly functions.



## **Honolulu - Land Use**



## CHAPTER 4. PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND GUIDELINES

This chapter sets forth policies and guidelines to guide planning and construction of proposed public and private public facility projects and infrastructure systems to carry out the vision for future development of ‘Ewa, as described in Chapter 2. These policies and guidelines are not regulations, but provide guidance that decision makers and administrators should follow, where sensible, in approving projects and revising rules, regulations, and best practices standards.

Information on timing and phasing of both planned and proposed infrastructure and public facility projects, which was available during the plan revision period, is also included. However, each project proposal is only identified and presented conceptually; not on a site-specific basis. More detailed information on the specific need, route alignment, site boundaries, capacity, and other specifications for each project, as applicable, will be prepared at the master planning stage required before a specific project can be approved. As noted in Chapter 5, existing Unilateral Agreements, Zoning and Urban Design Plans will continue to guide development in the area.

Policies and principles are provided for the following public facilities and infrastructure systems:

- 4.1 Transportation Systems
- 4.2 Water Allocation and System Development
- 4.3 Wastewater Treatment
- 4.4 Electrical Power Development
- 4.5 Solid Waste Handling and Disposal
- 4.6 Drainage Systems
- 4.7 School Facilities
- 4.8 Public Safety Facilities
- 4.9 Other Community Facilities

### 4.1 TRANSPORTATION SYSTEMS

This section describes the existing conditions, plans, and proposals for development of ‘Ewa’s roadways, transit system, and bikeways. (See the Public Facilities Map in Appendix A and the Planned and Proposed ‘Ewa Roadway Network Improvements listing in Table 4.1.) The section concludes with general policies and guidelines to guide future transportation system development in ‘Ewa.

The planned and proposed roadway elements and other transportation system features which are listed as potentially being needed to meet the projected development in ‘Ewa were identified through the regional planning and transportation analysis done for the initial ‘Ewa Development Plan Revision Program from 1994 to 1997, subsequent revisions of the O‘ahu Regional Transportation Plan (ORTP), the ‘Ewa Highway Master Plan and the 2009 ‘Ewa Roadway Connectivity Study.

Because of its generally even, gradually sloping terrain, ‘Ewa offers decided advantages for transportation.

- It provides an opportunity to create multiple linkages and routes between the various parts of the region. This advantage was enhanced by the closing of the Barbers Point Naval Air Station, which has allowed for increased road linkages to and across Kalaeloa.
- The terrain allows for relatively less expensive development of a dedicated transit right-of-way. The flat terrain also increases the feasibility of constructing a rapid transit system within that right-of-way.
- Both the terrain and the sunny, low rainfall climate enhance bicycling and walking as alternative forms of transportation, as well as for recreation. An improved environment for bicycling and walking also



improves the potential for high transit ridership. (See the discussion of the **Kapolei Area Bikeway Plan** in Section 4.1.5.)

Act 54 (May 2009), requires State and County transportation departments to adopt and implement a complete streets policy and establishes a task force to determine necessary standards and guidelines. The intent of a complete streets policy is to create and configure a connected street system that provides for all users; including, but not limited to, pedestrians, bicyclists and transit passengers of all ages and abilities.

**Table 4.1: Planned and Proposed ‘Ewa Roadway Network Improvements**

	<b>‘Ewa Hwy Master Plan <sup>(2)</sup></b>	<b>ORTP 2035 Project Numbers <sup>(3)</sup></b>	<b>ORTP 2035 Phasing <sup>(3)</sup></b>
<b>Planned Extensions <sup>(1)</sup></b>			
<b>Existing Roads Improvements</b>			
○ Widen Farrington Hwy (4 lanes, Ft. Weaver to Golf Course Road)	2020	20C	2011-2020
○ Widen Farrington Hwy (Kalaehoa Blvd to Kamokila)			
○ Widen Ft. Barrette Rd			
□ (4 lanes, Farrington to FDR Avenue)	2010/2020	21S	2011-2020
□ (4 lanes, FDR Avenue to Saratoga Avenue)		56C	2011-2020
○ Widen Kunia Road/Ft. Weaver Road			
□ (4 lanes, Anonui Street to Kupuna Loop)		71S	(Illustrative)
□ (6 lanes, Kupuna Loop to Farrington Hwy.)		71S	(Illustrative)
□ (6 lanes, Geiger Road to North Road)	2010		
○ Widen Kalaehoa Boulevard Phase II (Lauwiliwili St. to Olai St.)		17C	2011-2020
○ Extend Hānu‘a Street to Farrington Hwy.	2020	16S	2011-2020
○ Widen Farrington Hwy (6 lanes, Kalaehoa Blvd. to Hakimo Rd. [Nānākuli])		54S	2021-2035
○ H-1 contraflow lane			
○ Extend Kamokila Boulevard from Roosevelt Avenue to Saratoga Avenue		55C	2021-2035
<b>New Roads</b>			
○ Kapolei Parkway			
□ Aliinui Dr. [Ko ‘Olina] to Kalaehoa Blvd	2010, 2020	18C	2011-2020
□ Kamokila Blvd to Kamaaha Ave.	2010, 2020	19C	2011-2020
○ Kalaehoa East-West Spine Road		S57	2021-2035
○ Kualaka‘i Pkwy (North-South Road)			
□ Widen to 6 lanes from H-1 to Kapolei Pkwy		22S	2011-2020
□ Extend from Kapolei Pkwy to Keoneula Blvd.	2020	23S	2011-2020
○ Makakilo Drive extension		35C	2011-2020
○ Makakilo Mauka Frontage Road, Makakilo Dr. to Kalaehoa Blvd		58S	2021-2035
<b>Interchange Improvements</b>			
○ H-1 Kunia Interchange (Add eastbound lane)		71S	(Illustrative)
○ H-1 Pālalilai Interchange	2020	16S	2011-2020
<b>New Interchanges</b>			
○ H-1 Kapolei Interchange	2010, 2020	15S	2011-2020
○ Makaiwa Hills			
<b>Additional Proposed Elements <sup>(4)</sup></b>			
<ul style="list-style-type: none"> <li>○ Develop additional north-south and east-west roads near the City of Kapolei</li> <li>○ Develop an additional north-south road in East Kapolei</li> <li>○ Develop an additional east-west road in East Kapolei connecting between Farrington Highway, Kualaka‘i Pkwy, and Fort Weaver Road</li> </ul>			
<b>Notes:</b> <p><sup>(1)</sup> Some projects listed in previous editions of the <b>O‘ahu Regional Transportation Plan (ORTP)</b> were not listed in the <b>ORTP 2035</b> adopted in April 2011. If no number appears, the project was not included in the <b>ORTP 2035</b>.</p> <p><sup>(2)</sup> 2010: Project identified in the ‘Ewa Highway Master Plan (2002) as needed by 2010. 2020: Project identified in the ‘Ewa Transportation Impact</p> <p><sup>(3)</sup> The <b>ORTP 2035</b> was approved in April 2011. Project Numbers from Table 8 of the ORTP 2035. C indicates a City project; S is a State Project. Phasing indicates the period when funding and construction is anticipated for the project. Illustrative projects could be added if additional funding is available.</p> <p><sup>(4)</sup> A number of additional north-south and east-west connections needed to provide connectivity as ‘Ewa develops are identified on the public facilities map in Appendix A.</p>			



#### **4.1.1 EXISTING ROADWAY NETWORK**

The major east-west arterials of the ‘Ewa roadway system includes:

- The H-1 Freeway, which is the major arterial road connecting ‘Ewa with the Primary Urban Center,
- Farrington Highway, which, past Kapolei, is the sole arterial highway connecting the Wai‘anae Coast with ‘Ewa, and, between Kapolei and Waipahū, is a secondary east-west route; and
- Kapolei Parkway, which links ‘Ewa Beach in the east with the City of Kapolei in the west, and eventually will extend to Ko ‘Olina.

North-south roads distribute traffic onto and off the east-west arterials at several locations. They include:

- Fort Weaver Road which links West Loch, ‘Ewa Villages, ‘Ewa by Gentry, Ocean Pointe/Hoakalei, and ‘Ewa Beach with Farrington Highway and H-1,
- Kunia Road, which connects ‘Ewa with Central O‘ahu’s Schofield Barracks and Wahiawā,
- Kualaka‘i Parkway (formerly North-South Road) which links Kapolei Parkway with Farrington Highway and the H-1 Freeway;
- Fort Barrette Road, which extends south from the City of Kapolei to Kalaeloa,
- Makakilo Drive, which continues up the hillside from the Makakilo Interchange of the H-1 Freeway, providing the only access to Makakilo, and
- Kalaeloa Boulevard, which provides access to Campbell Industrial Park and Kalaeloa Barbers Point Harbor via the H-1's Pālailai Interchange.

According to the **O‘ahu Regional Transportation Plan 2035**, the number of people traveling on H-1, Farrington Highway, and Fort Weaver Road just before the Kunia Interchange is projected to increase from 183,600 trips per day in 2007 to 276,600 in 2035, an increase of 51 percent. Traffic congestion on east-west and north-south collector and connector roadways in ‘Ewa is also increasing, even outside the peak commuting hours.

As noted in Section 4.1.6, the substantial development of Secondary Urban Center jobs (from 19,900 jobs in 2000 to over 103,000 jobs by 2035) is expected to increase the number of ‘Ewa residents who work in the area. However, even with this substantial job growth, it is projected that the number of commuters traveling to the PUC from ‘Ewa and Central O‘ahu will still increase, although at a lower rate than would occur if development of the Secondary Urban Center was not supported.

#### **4.1.2 PLANNED EXTENSIONS OF THE ROADWAY NETWORK**

Planning and development of major roadways is the shared responsibility of the State Department of Transportation and the city department of transportation services. Planning and use of federal transportation funds is coordinated through the O‘ahu Metropolitan Planning Organization (OMPO), a joint City-State agency.

A consortium of landowners and developers working with the State Department of Transportation and the City department of transportation services funded the **‘Ewa Highway Master Plan** which identified major roadway improvements needed to meet projected development in ‘Ewa through 2025.

Based on the **‘Ewa Highway Master Plan**, the City Council, in 2002, adopted Ordinance 02-52 establishing the ‘Ewa Highway Impact Fee which is added to all building permits in ‘Ewa and in the Royal Kunia and Village Park areas of Central O‘ahu. Funds collected from the fees are to be used to provide the local contribution for seven major ‘Ewa roadway projects needed by 2010 to meet projected growth. (See Table 4.1 for details.)



The 2002 **‘Ewa Highway Master Plan** was recently updated as part of an update to the ‘Ewa Highway Impact Fee program. The updated **Plan** identifies eight roadway and intersection projects needed to meet growth in ‘Ewa traffic by 2020.

The **O‘ahu Regional Transportation Plan (ORTP) 2035** was adopted in April 2011. It is the State and County plan for what transportation projects are needed through 2035 for O‘ahu. In order to receive Federal funding, projects need to be listed in the **ORTP**. See Table 4.1 for listings of the ‘Ewa roadway projects in the **ORTP 2035** and the 2002 and 2011 versions of the **‘Ewa Highway Master Plan**.

The **‘Ewa Highway Master Plan** and the **ORTP 2035** show major elements of the future ‘Ewa roadway network. These major improvements include:

- Widening of Fort Weaver Road;
- Widening of Farrington Highway;
- Completion of Kapolei Parkway, which is planned as a major east-west corridor, connecting the eastern parts of ‘Ewa with the City of Kapolei and employment areas to the west;
- Connection of Kualaka‘i Parkway *mauka* of the H-1 Freeway interchange with the extension of Makakilo Drive;
- Widening of Fort Barrette Road;
- Extension of the Kualaka‘i Parkway south of Kapolei Parkway into Kalaeloa to provide a direct access to the Regional Park for East Kapolei residents and UH-West O‘ahu campus staff and students;
- Extension of Keoneula Boulevard to link Ocean Pointe/Hoakalei with the Kalaeloa Regional Park and the extension of Kualaka‘i Parkway;
- Extension of Kamokila Boulevard to Saratoga Avenue to further improve this route between Kalaeloa and the City of Kapolei;
- Extension of Geiger Road to connect with Saratoga Road and provide a direct link between Kalaeloa Boulevard, Kamokila Boulevard, Fort Barrette Road and the Kualaka‘i Parkway;
- Improvements to existing H-1 Freeway interchanges at Pālailai, and Kunia;
- Construction of a new H-1 Freeway interchange at Kapolei;
- Widening of Kalaeloa Boulevard;
- Extension of Hānu‘a Street parallel to Kalaeloa Boulevard to enhance truck access between Farrington Highway and Barbers Point Industrial Area/Kalaeloa Barbers Point Deep Draft Harbor; and
- Development of a mauka frontage road to connect Makakilo Drive with Kalaeloa Boulevard.

Recognition in this Plan of these major improvements to future roadway networks for ‘Ewa in no way implies City Council approval of these projects. Any projects requiring City funding will have to be approved through the Capital Improvements Program process.

#### **4.1.3 ADDITIONAL ELEMENTS OF THE ROADWAY NETWORK**

The planned development of East Kapolei and redevelopment of Kalaeloa will eventually open additional areas for use and increase transportation needs beyond the levels planned for the **‘Ewa Highway Master Plan** and the **ORTP 2035**.

Additional east-west and north-south roadways will be needed to enhance movement between the various parts of the ‘Ewa region and to provide improved access to activity centers such as Ocean Pointe/Hoakalei and the Kalaeloa Regional Park, including:

- Development of an east-west collector-connector roadway system, which connects developments on both sides of Kualaka‘i Parkway in an efficient circulation pattern;



- Development of additional north-south roads to improve circulation between the City of Kapolei and the freeway, Makakilo and Makaīwa Hills;
- Construction of a new H-1 Freeway interchange at Makaīwa Hills;
- Extension of Keaunui Road to connect with Renton Road;
- Development of an additional east-west arterial between East Kapolei and Fort Weaver Road; and
- Development of at least one additional north-south road between East Kapolei and Farrington Highway, east of the Kualaka‘i Parkway.

The need for these roads has been established only at the conceptual stage, and further study, planning, and approvals will be required to establish need, appropriate route, capacity, and other characteristics.

DPP has completed a road connectivity study for the ‘Ewa region to identify where east-west and *mauka-makai* connector roads should be located to link adjacent subdivisions. Results of the study are used by the Department in the approval of subdivision layouts.

#### **4.1.4 TRANSIT**

With population growth, the City should increase transit service in ‘Ewa in order to enhance circulation among ‘Ewa communities and between ‘Ewa and the adjacent Wai‘anae and Central O‘ahu areas, and to provide suitable service for peak-hour commuting.

##### **4.1.4.1 Bus Service**

Bus service is provided through the Department of Transportation Services, which currently contracts with O‘ahu Transit Services (OTS) for operation of TheBus. A second vendor operates the Handi-Van system. As of 2009, OTS operated a fleet of 531 buses. About 62 buses are currently assigned to TheBus’ ‘Ewa Service Area, which is identical to the ‘Ewa Development Plan area.

The **Comprehensive Bus Facility and Equipment Requirements Study**, published in 1994 by the Honolulu Public Transit Authority, examined bus system expansion and financing needs for the period 1994 - 2006. This study has not been updated. Currently, there are no plans to expand the bus fleet beyond the current 531 buses. For the fleet to expand its service, public review and Council approval will be necessary.

The department of transportation services has currently identified and proposed for development three park-and-ride facilities in ‘Ewa, one in the future civic center area of the City of Kapolei, one further east, near the Kualaka‘i Parkway/Kapolei Parkway intersection, and another near the corner of Kualaka‘i Parkway and Farrington Highway.

Policies, planning principles, and guidelines in this Development Plan support the establishment of transit service throughout ‘Ewa and creation of linkages feeding into transit nodes along the rapid transit corridor (see Section 4.1.4.2).

##### **4.1.4.2 Planned Rapid Transit Corridor**

In 2006, the City department of transportation services completed a planning Alternatives Analysis to evaluate alternatives that would provide high-capacity transit for the corridor between the University of Hawai‘i at Mānoa, downtown Honolulu, and the fast growing areas in Leeward O‘ahu and Kapolei. On December 22, 2006, the City Council selected as the Locally Preferred Alternative, a fixed-guideway transit system extending from the City of Kapolei to the University of Hawai‘i Mānoa with a connection to Waikīkī. The initial phase of the transit system



will begin in East Kapolei near the planned Kroc Center and the Department of Hawaiian Home Lands headquarters, and end at the Ala Moana Shopping Center.

As shown on the Public Facilities Map in Appendix A, a rapid transit corridor is planned to connect the City of Kapolei with Waipahū and onward to the Primary Urban Center. Service on the corridor could provide a shuttle service between Kapolei West, the City of Kapolei, Kalaeloa, DHHL East Kapolei, the University of Hawai‘i West O‘ahu Campus (UH WOC), Ho‘opili, and Waipahū, and an express commuter service to and from the Primary Urban Center. In peak-hour commuting, the corridor will provide high-speed dedicated transit service.

By connecting to the Primary Urban Center via Waipahū, the corridor will provide for a future high-speed connection between the Kapolei campus of the University of Hawai‘i at West O‘ahu and Leeward Community College, Honolulu Community College, and the University of Hawai‘i at Mānoa.

The ‘Ewa rapid transit corridor is planned to run from Waipahū through the proposed Ho‘opili project, turning south to run along Kualaka‘i Parkway to extend into Kalaeloa where it turns west and runs along Saratoga Road until it turns north and enters the City of Kapolei on Wākea Street, turning west on Kapolei Parkway until reaching its terminus near the Kapolei Commons shopping center.

Developments along the proposed transit corridor should set aside appropriate sized right-of-way and space for pedestrian-station interface areas for the establishment, when needed in the future, of an elevated rapid transit system. Such a system will require a 28 to 32 foot right-of-way along the route and a 75 foot right-of-way for transit station sites (at the transit nodes).

Land has been set aside for a rapid transit right-of-way in the median of Kapolei Parkway and along the east side of the Kualaka‘i Parkway corridor.

DR Horton, Schuler Division has purchased the former Campbell Estate lands along Farrington Highway between Kualaka‘i Parkway and Fort Weaver Road. They have made a commitment to provide a rapid transit corridor right-of-way between Kualaka‘i Parkway and Fort Weaver Road.

Land has been set aside in the City of Kapolei for a transit station/bus terminal/park-and-ride facility, and provisions should be made for transit stations/park-and-ride facilities at each of the transit nodes along the rapid transit corridor.

Medium density apartment and commercial development should be permitted and encouraged within a 1/4 mile radius (5 minutes walking distance) around the transit station/park-and-ride facility site at the center of the transit node. These transit nodes should be designed to give priority to pedestrians and areas intended for pedestrian access and circulation. The objective is to create a land use pattern that would allow residents to minimize use of the private automobile and encourage use of transit for longer trips and walking or biking for short trips.

#### **4.1.4.3 Commuter Ferry System**

TheBoat, a high-speed commuter ferry system, operated between September 2007 and June 2009, and provided an alternative way to commute to the Primary Urban Center from ‘Ewa and West O‘ahu. The ferry ran between Kalaeloa Barbers Point Harbor and the Aloha Tower.

Renewal of the service may be possible if an ‘Ewa terminus in the ‘Ewa Beach area could be obtained.



#### 4.1.5 BIKEWAY SYSTEM

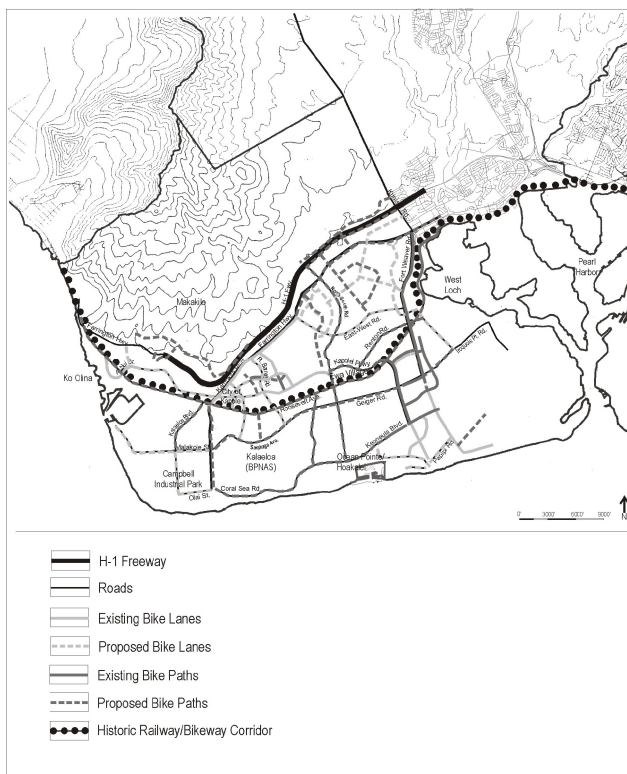
The **Kapolei Area Bikeway Plan (KABP)**, published by Campbell Estate in 1991, establishes a comprehensive bikeway network to serve the ‘Ewa Plain. The network would include 56 miles of bikeway facilities, including bike paths (separated from the roadway), bike lanes (four- to six-foot lanes) and bike routes (shared curbside vehicle lane, with minimum 12-foot width).

The **Kapolei Area Bikeway Plan** is part of the **City of Kapolei Urban Design Plan**, which was updated and adopted by the City Council in 2008. The KABP covers all of ‘Ewa except for military bases in the area. Elements of the KABP have been adopted by the State department of transportation as part of the State bikeway plan, **Bike Plan Hawai‘i** (2003), and have been included in draft **O‘ahu Bike Plan** maps for ‘Ewa which are being reviewed as part of a City update to the 1999 **Honolulu Bicycle Master Plan**.

In addition, the Department of Planning and Permitting has completed the **‘Ewa Roadway Connectivity Study** (May 2009) which provides a proposed bikeway facility plan for ‘Ewa to be used in evaluating roadway master plans submitted as part of subdivision applications.

The **‘Ewa Development Plan** includes all the projects found either in the KABP, in the State’s **Bike Plan Hawai‘i**, or the **‘Ewa Roadway Connectivity Study**. As shown in Exhibit 4.1, major bike paths should run along the OR&L right-of-way, Kapolei Parkway, the Kualaka‘i Parkway, and Fort Weaver Road. Bikeways should also be incorporated into other major roadways, and there should be an extensive network of bike lanes within the City of Kapolei and the Villages of Kapolei.

**Exhibit 4.1**  
**‘Ewa Bikeway System**





#### 4.1.6 GENERAL POLICIES

- **Transportation System Functions** - To support 'Ewa's role as the site for the Secondary Urban Center and a major growth area for new residential and employment development, its transportation system should:
  - Provide adequate access between residences and jobs, shopping, and recreation centers in 'Ewa as development occurs;
  - Provide improved access to and from adjacent areas, especially Central O'ahu; and
  - Provide adequate capacity for major peak-hour commuting to work in the Primary Urban Center. (Although the share of residents who will both live and work in 'Ewa is projected to increase from 17 percent in 1990 to 46 percent by 2030, a majority of residents will still commute to jobs outside the region.)
- **Transportation Development Priorities** - Meet demand for peak-hour transportation in 'Ewa by:
  - Increased use of transit; and
  - Transportation demand management through:
    - Provision of improved service on High Occupancy Vehicle (HOV) facilities;
    - Provision of park-and-ride facilities; and
    - Use of other programs which encourage reduced use of the single occupant private automobile.

#### Comprehensive Roadway Network

- Design and develop the roadway system to provide multiple routes for traveling among the various residential communities and activity centers of 'Ewa, thereby lending variety to travel within the region and promoting communication among its communities. Network designs for communities should take on more of a grid pattern, providing intersections between collector or connector streets at approximately quarter-mile intervals.
- Design and develop the roadway system to increase connections between parallel major collectors and arterials - e.g., between Kualaka'i Parkway and Fort Weaver Road - rather than relying primarily upon loop roads to feed the major roadways. Planning for East Kapolei and for Kalaeloa are important opportunities for creating such connections.

#### Land Use Planning Anticipating Rapid Transit

- Reserve land sufficient for the right-of-way for the Council-identified rapid transit corridor prior to development and plan for medium density, high-traffic land uses along the corridor. This strategy will contribute to the feasibility of developing a high-speed transit line and will result in a more mobile, less automobile-dependent community.
- Plan all the communities along the proposed transit corridor on Farrington Highway, on Kualaka'i Parkway, through Kalaeloa, and on Kapolei Parkway to reflect the desire to establish a rapid transit corridor with medium density residential and commercial nodes located at regular intervals.

#### Transit-Oriented Community Street Systems

- Design circulation systems within residential communities and commercial centers to emphasize connections between north-south and east-west streets and accessibility from residential streets to bus routes, parks, schools, and commercial centers.
- Design circulation systems to facilitate bicycle and pedestrian travel, to increase transit use, and to reduce dependence on automobile travel (see Chapter 3, Sections 3.9 and 3.10, for more detailed planning principles and guidelines for circulation in residential communities and commercial centers).
- **Adequate Access and Services** - Before zoning approval is given by the City Council for new residential and commercial development in 'Ewa, the department of transportation services, department of planning and permitting, and State department of transportation, as appropriate, should:



- Report if adequate transportation access and services can be provided with existing facilities and systems; and
- If adequate capacity cannot be provided by existing facilities, recommend conditions that should be included as part of the zone change approval in order to assure adequacy, including timing of any necessary improvements.
- **Reduction in Automobile Use** - Reduce reliance on the private passenger vehicle by:
  - Providing circulation systems with separated pedestrian and bicycle paths and convenient routes for public transit service;
  - Designing street systems in new development areas which reduce the length of dead end streets and provide for smaller blocks in order to facilitate bus routes, provide better access for emergency and utility vehicles and encourage walking and biking;
  - Providing supporting facilities and amenities for pedestrian, bicycle, and public transit use, including the use of bike trails, and the provision of bicycle racks at commercial centers, bicycle storage facilities at employment centers and bus shelters at bus stops; and
  - Allowing and encouraging medium-density and high-traffic land uses along the Council-identified rapid-transit corridor, especially within a quarter-mile of centers of the transit nodes.

**Roadways**

- Develop the roads listed in the **‘Ewa Highway Master Plan** and the **O‘ahu Regional Transportation Plan** to meet the development anticipated by 2035.
- Develop additional east-west and north-south roadways to enhance movement between the various parts of the ‘Ewa region and to provide improved access to activity centers such as the proposed Kalaeloa Regional Park and the Hoakalei marina.
- Design the extension of the Kualaka‘i Parkway south of Kapolei Parkway into Kalaeloa to minimize adverse impacts on historic railway operations and historic resources at the ‘Ewa Marine Corps Air Field.

**Transit**

- Increase transit service in ‘Ewa to enhance circulation within ‘Ewa and between ‘Ewa and the adjacent Wai‘anae and Central O‘ahu areas and to provide suitable service for peak-hour commuting.
- Provide sites for transportation centers and park-and-ride facilities as new communities are developed.
- Develop a rapid transit corridor connecting the City of Kapolei with the Primary Urban Center to provide both a shuttle service between Kapolei West, the City of Kapolei, Kalaeloa, DHHL East Kapolei, the University of Hawai‘i West O‘ahu Campus (UH WOC), Ho‘opili, and Waipahū, and an express commuter service to and from the Primary Urban Center.
- Set aside land in the City of Kapolei and along the rapid transit corridor for future rapid transit stations and park-and-ride facilities.
- Establish a commuter ferry service to downtown Honolulu from Hoakalei Marina if such service is found to be feasible and if sufficient financing can be obtained to construct improvements needed to provide such service from the Marina.

**Bikeway System**

- Develop major bike paths along the OR&L right-of-way, Kapolei Parkway, the Kualaka‘i Parkway, and Fort Weaver Road.
- Incorporate bikeways into other major roadways.
- Develop an extensive network of bike lanes within the City of Kapolei and the Villages of Kapolei.

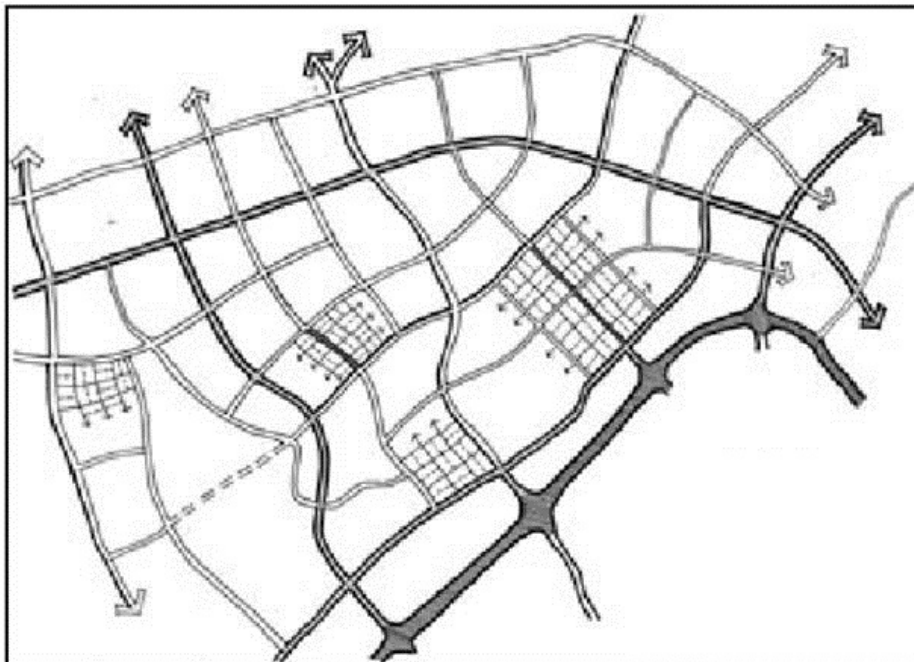


#### 4.1.7 GUIDELINES

The following guidelines suggest how the general policies for transportation system development in 'Ewa should be implemented.

- **Community-Level Street Standards** - Revise standards for public streets within residential communities and commercial centers to support and improve pedestrian and bicycle travel and on-street parking. While average motor vehicle speed may be reduced, safety and enjoyment for pedestrians and bicyclists would be increased and greater efficiency in land use, reduced constructions costs, and improved street function may also be achieved.
- Design the street network to provide multiple options for reaching major amenities such as the Main Street/Village Center shops, schools, parks and community facilities, without needing to access an arterial boulevard.
- Consider view corridors to the mountains, open space, and other local and regional landmarks in the arrangement of streets, commercial centers, and shared spaces within both residential and mixed use districts.
- Provide a circulation network master plan for 'Ewa that is comprised of a loose "grid" of arterials at 1/2-1 mile intervals, collector streets at 1/4 mile intervals and connectors roads between individual developments at regular intervals between collectors, where permitted by terrain. See Exhibit 4.2.
- Connect existing adjacent neighborhoods to new streets, bike ways, paths, and trails.
- Use traffic calming measures to slow traffic making short cuts and support a desirable living environment.
- Use multiple connecting streets within and between residential neighborhoods to knit neighborhoods together, not form barriers.
- Use streets, bikeways, and walkways to create a unifying circulation network that provides convenient routes throughout the community.
- Establish specific connectivity standards (minimum intersection frequency, maximum dead end length, number of dwellings or buildings on a cul-de-sac, and minimum street spacing) for each zoning district.

**Exhibit 4.2**  
**Street Network**





## 4.2 WATER ALLOCATION AND SYSTEM DEVELOPMENT

In 1987, the State enacted the State Water Code in order to protect, control, and regulate the use of the State’s water resources for the benefits of its people. Under the Code, the City is responsible for preparing the water use and development plan for the City and County of Honolulu.

This plan, called the **O‘ahu Water Management Plan (OWMP)**, is prepared by the Board of Water Supply with the assistance of the State Commission on Water Resource Management and the department of planning and permitting, and approved by the City Council following extensive public review and comment. The goal of the **OWMP** is to provide guidance for the sustainable management and use of O‘ahu’s valuable and finite surface and ground water resources in meeting demands consistent with the City land use plan. The current **OWMP** was adopted by the State Commission on Water Resources and the City Council in 1990.

The Board of Water Supply (BWS) has begun the development of eight district-wide Watershed Management Plans for each of the eight Development Plan and Sustainable Communities Plan areas. The **Wai‘anae Watershed Management Plan**, and **Ko‘olauloa Watershed Management Plan** are the first two plans to be prepared. They will be followed by plans for the North Shore and Ko‘olau Poko, and then ‘Ewa, Central O‘ahu, the Primary Urban Center, and East Honolulu. When completed, the eight Watershed Management Plans will be used to update the **O‘ahu Water Management Plan**.

**Water Reclamation** - Under the City’s agreement through a Consent Decree with the U.S. Environmental Protection Agency and the State Department of Health, the City established a water reclamation facility at Honouliuli Wastewater Treatment Plant (WTP) to recover nonpotable water for beneficial uses such as irrigating parks and golf courses, providing water for industrial cleaning, and for making steam used in oil processing.

Construction of the secondary treatment unit at the Honouliuli WTP was completed in 1996. The facility is capable of providing 13 million gallons per day (mgd) of nondisinfected secondary treated reclaimed water (R-3 quality). The R-3 quality water receives further treatment known as tertiary treatment at the Honouliuli Water Recycling Facility (WRF) which produces two grades of recycled water: R-1 for irrigation and RO (Reverse Osmosis) demineralized water for industrial uses. The WRF can process up to 12 mgd which is distributed to customers throughout ‘Ewa through separate lines for each grade of water. The Board of Water Supply is planning expansion of the distribution system, in conjunction with expansion of both the Honouliuli WTP and WRF, to provide over 26 mgd of nonpotable water for use in ‘Ewa.

**Desalination Project** - Following the success of a small State of Hawai‘i sponsored pilot project, the Board of Water Supply is planning to construct an initial 5 mgd desalination plant on a 20-acre parcel at Kalaeloa. Capacity of the plant could be increased to 15 mgd in future phases. The plant is expected to have an operational life of 30 to 50 years.

The Board of Water Supply evaluated the water development needs of the existing and new residential and commercial (including retail, office, resort, recreational, and industrial) development likely by 2035, as a result of implementation of the **‘Ewa Development Plan**.

- The Board of Water Supply forecasts that 27 mgd of **potable** (or drinkable) water will be needed in ‘Ewa by 2035 to meet projected growth in residential and commercial demand from the 14.9 mgd needed in 2000.
- In addition, long-term demand for **nonpotable** water for
  - Existing and new urban irrigation and other urban purposes is estimated to be approximately 21 mgd; and
  - The 3,000 acres of agricultural land in ‘Ewa protected from development by this plan could be as much as 10 mgd (based on estimates from the **State Agricultural Water Use and Development Plan**).



Potable water system infrastructure has been master planned by the Board of Water Supply to accommodate ‘Ewa’s planned growth. Ultimately, potable water demands of the remaining lands within the Community Growth Boundary should be met by desalination or additional groundwater sources in Central O‘ahu if sustainable yield is determined available.

The demand for nonpotable water for urban irrigation and other urban purposes and for agricultural irrigation for lands over the ‘Ewa Plain nonpotable aquifer; will be met with a combination of recycled water, brackish caprock water, and brackish basal water. Infrastructure providing R-1 recycled water connects the Campbell Industrial Park with Fort Weaver Road, and brackish water systems exist in several developments. Demineralized recycled water is also provided by the Board of Water Supply to refineries and power plants in Campbell Industrial Park for industrial purposes. The demand for nonpotable water for agricultural irrigation of lands over the Pearl Harbor potable water aquifer should be met with low chloride irrigation water such as the Wai‘ahole Ditch or freshwater wells.

As shown in Table 4.2, the Board of Water Supply has identified potential sources of potable and nonpotable water to meet the projected demand in ‘Ewa through 2035. These sources will be pursued as part of the Board’s development and operation of a diversified and integrated island-wide water system.

Strategies in the Watershed Management Plan promote on-going groundwater source development coupled with efforts to increase water delivery efficiency, water conservation, and continued development of alternative sources of water, such as recycled and brackish water and desalination.

The remainder of the section provides general policies and guidelines for water allocation and water system development in ‘Ewa.



TABLE 4.2: POTENTIAL SOURCES OF POTABLE AND NONPOTABLE WATER FOR ‘EWA		
<b>POTABLE GROUNDWATER RESOURCES</b>		
		<b>Estimated Source</b>
<b>GROUND WATER SOURCE</b>		<b>Yield (mgd)</b>
1. Kunia Wells III <sup>(1)</sup>		3.00
2. Waipahū Wells IV <sup>(1)</sup>		3.00
3. Honouliuli Wells <sup>(2)</sup>		1.62
4. ‘Ewa Shaft		10.00
5. Additional Central O‘ahu Wells <sup>(3)</sup>		
<b>Total</b>		<b>17.62</b>
<b>ALTERNATIVE WATER RESOURCES</b>		
	<b>Available Resource (mgd)</b>	
<b>SOURCE</b>	<b>Minimum</b>	<b>Maximum</b>
<b>POTABLE</b>	<b>Estimate</b>	<b>Estimate</b>
1. Kalaeloa Seawater Desalination Plant	5.00	15.00
2. Kapolei Brackish Desalination Plant	0.20	0.50
<b>Total Potable</b>	<b>5.20</b>	<b>15.50</b>
<b>NONPOTABLE</b>		
3. ‘Ewa Caprock <sup>(4)</sup>	8.70	9.00
4. Brackish Basal Water <sup>(5)</sup>	4.00	5.00
5. Recycled Water <sup>(6)</sup>	12.00	12.00
6. Waiāhole Ditch (‘Ewa only) <sup>(7)</sup>	4.73	6.00
<b>Total Nonpotable</b>	<b>29.43</b>	<b>32.00</b>
<b>NOTES:</b>		
mgd = million gallons per day mg/l = milligram per liter		
<sup>(1)</sup> Portion of the source will supply water for Wai‘anae’s growth.		
<sup>(2)</sup> Of the 6.72 mgd permitted use, 1.62 mgd remains available for new development.		
<sup>(3)</sup> Unpermitted sustainable yield is available but hydro-geologic analysis must be conducted.		
<sup>(4)</sup> Minimum is existing use July 2005. Maximum was 1996 proposed sustainable yield. ‘Ewa caprock is now managed by a chloride limit of 1,000 mg/l.		
<sup>(5)</sup> Based on existing brackish basal sources, EP-2 (1 mgd), EP-5&6 (2 mgd), EP-10 (1-2 mgd).		
<sup>(6)</sup> Expansion of recycled water supply beyond 12 mgd is possible but not planned at this time.		
<sup>(7)</sup> Minimum estimate is Campbell Estate 3.98 mgd and Pu‘u Makakilo 0.75 mgd allocation. Max adds possible unpermitted water.		
Allocation of groundwater sources require the approval of the State Commission on Water Resource Management (CWRM).		
<b>Source:</b>		
Honolulu Board of Water Supply, 2008. Watershed Management Plan		
CWRM Database 2005		



#### 4.2.1 GENERAL POLICIES

##### **Adequacy of Water Supply**

Before zoning approval is given for new residential or commercial development in 'Ewa, the Board of Water Supply should:

- Report if adequate potable and nonpotable water is available; and
- If adequate potable and nonpotable water is not available, recommend conditions that should be included as part of the zone change approval in order to assure adequacy.
- Confirm adequacy of existing capacity at the time of land subdivision or building permit applications for existing lots.

##### **Water Use Efficiency and Conservation**

- Require developments to conserve water resources by implementing water conservation measures, such as low flow plumbing fixtures, drought tolerant landscaping, sub-metering and efficient irrigation systems with soil moisture sensors. Such requirements shall be determined during review of building permit applications. Encourage owners of existing plumbing systems to conduct regular water audits and effect repairs to reduce water loss.
- **Dual Water Lines** - Require developments with large landscaped areas (such as golf courses, parks, or schools), roadway landscaping, and industrial processes to have dual water lines to allow conservation of potable water and use of nonpotable water for irrigation and other appropriate uses. Such requirements shall be determined during review of project water master plans for new developments and approval of zoning applications and construction plans.
- **Development and Allocation of Potable and Nonpotable Water** - The State Commission on Water Resource Management has authority in all matters regarding administration of the State Water Code. By City Charter, the Board of Water Supply has the authority to manage, control and operate the water systems of the City, and therefore should coordinate the development and allocation of potable and nonpotable water sources and systems intended for municipal use on O'ahu as guided by the City's land use plans and the OWMP.

##### **Use of Nonpotable Water**

- Develop an adequate supply of nonpotable water for irrigation and other suitable uses on the 'Ewa Plain in order to conserve the supply of potable water and to take advantage of dual water systems constructed by 'Ewa developers.
  - The Pearl Harbor aquifer is the most cost effective and accessible water resource of potable quality on O'ahu, and it is needed to support the existing and future domestic potable water uses described in the development plans.
  - To minimize the risk of impacts to our precious potable water sources, the use of recycled water reclaimed from wastewater effluent and brackish waters as nonpotable irrigation sources in the coastal caprock area such as the 'Ewa Plain should be given high priority.
  - Significant demand exists for nonpotable water for golf courses, landscape irrigation, and industrial uses on the 'Ewa Plain.
  - In addition to the compatibility of the source to the demand in the area, the infrastructure to distribute the recycled water in that area is being planned and developed by the Board of Water Supply.
  - Recycled water from the Honouliuli Water Recycling Facility and brackish water should, therefore, be used to meet demand in the 'Ewa Plain where there are no adverse consequences to the drinking water resources.
- Require nonpotable water used for irrigation above Pearl Harbor aquifer to be low in chlorides and total dissolved solids to protect the quality of drinking water withdrawn from wells located down-gradient of the application. Experiences with increasing chloride, nitrate, and pesticide contamination of groundwater



indicate that activities on the surface of the land can have a detrimental effect on the quality of drinking water.

- **Use of Wai‘ahole Ditch Water** - Request that the State Commission on Water Resource Management consider all sources of water in making allocations. A sufficient amount of water is needed to meet the diversified agricultural needs for ‘Ewa and Central O‘ahu along with providing for high quality recharge of the Pearl Harbor aquifer. A number of potential sources are identified in Table 4.2, including: caprock, surface water, spring waters, Wai‘ahole Ditch Water, and recycled water recovered from wastewater effluent. The amount of water available and the potential use of each of these sources vary according to location.

#### **Alternative Water Supplies**

- Where practical, develop alternative water supplies using new technologies in water reclamation, membrane and distillation desalination and deep ocean water applications to ensure adequate supply for planned uses.
- Encourage use of technologies conserving water and using renewable energy that could support alternative water supplies, such as seawater air conditioning, photovoltaics, efficient plumbing and lighting fixtures, wave energy, and bio-fuels.

### **4.3 WASTEWATER TREATMENT**

The City’s **West Māmalā Bay Wastewater Facilities Plan** (2001) provides estimates that treatment/disposal capacity at the Honouliuli WTP will need to be increased from existing capacity for primary treatment of 38 mgd to almost 51 mgd by 2020 to meet projected population and economic growth in ‘Ewa and Central O‘ahu resulting from implementation of the Development Plans. In addition, the capacity of specific sewer lines and pump stations will need to be increased.

As noted above, the City is meeting its commitment to the U.S. Environmental Protection Agency and the State Department of Health to reclaim and use, islandwide, up to 10 mgd of recycled water recovered from wastewater effluent.

The remainder of the section provides general policies for wastewater system development in ‘Ewa.

#### **4.3.1 GENERAL POLICIES**

- Require all wastewater produced by new developments in ‘Ewa to be connected to a regional or municipal sewer service system.
- Where feasible, use recycled water recovered from wastewater effluent for irrigation and other uses below the Underground Injection Control (UIC) line of the State Department of Health and the “No-Pass” Line of the Board of Water Supply.
- Locate wastewater treatment plants in areas shown as planned for industrial use and away from residential areas shown on the Urban Land Use Map in Appendix A. Existing treatment plants are shown on the Urban Land Use Map and the Public Facilities Map in Appendix A.
- Use a City review and approval process, which provides adequate public notice and input, complete technical analysis of the project by the department of planning and permitting, and approval by the City Council, for any major new private wastewater treatment plant. Other system elements, such as pump stations and mains, should not require such comprehensive review and policy approval.



#### **4.4 ELECTRICAL POWER DEVELOPMENT**

The Hawaiian Electric Company (HECO) forecasts that increased demand, the need for different types of generation to help reliably integrate additional renewable energy from intermittent sources, and the possible retirement of the Honolulu Power Plant from service will create a need for additional island-wide power generation capacity by 2025. Potential sites in 'Ewa for additional generating units include Campbell Industrial Park and Kahe Point.

In May 2007, the State Public Utilities Commission approved HECO's proposal to build a 110-megawatt generating plant adjacent to the company's Barber's Point Tank Farm in Campbell Industrial Park. The new generator is planned to come on line in 2009.

HECO has a number of renewable energy initiatives and activities including rebates to help homeowners install rooftop solar water heating systems, funding for biofuels crop research, and support for installations of photovoltaic systems with net energy metering. (Net energy metering allows the owner of the photovoltaic system to receive credit for the export of surplus energy into the island-wide grid.)

The remainder of the section provides general policies for electrical power development in 'Ewa.

##### **4.4.1 GENERAL POLICIES**

- Analyze and approve system improvements – such as development of a new power generating plant and/or major new transmission lines – based on islandwide studies and siting evaluations.
- Give strong consideration to placing any new transmission lines underground where possible under criteria specified in State law.
- Locate electrical power plants in areas shown as planned for Industrial use and away from residential areas shown on the Urban Land Use Map in Appendix A. Existing power plants are shown on the Urban Land Use Map and Public Facilities Map in Appendix A. Other system elements, such as sub-stations and transmission lines, are not shown on the map and should be reviewed and approved administratively.
- Consider any proposed major new electrical power plant through a City review and approval process which provides public notification and opportunity to comment and public agency analysis of impacts and mitigations.

#### **4.5 SOLID WASTE HANDLING AND DISPOSAL**

Two major solid waste handling and disposal facilities are located in 'Ewa:

- The H-Power plant at Campbell Industrial Park is operating at maximum capacity, receiving over 600,000 tons of solid waste each year. A new boiler now under construction will boost the processing capacity up to 900,000 tons per year and provide a significant reduction of material sent to the landfill for disposal.
- The Waimānalo Gulch Sanitary Landfill, located between the proposed Makaīwa Hills residential development and Kahe Valley, is the major active waste disposal site on O'ahu.

To comply with a 2003 State Land Use Commission order setting 2008 as the limit for Waimānalo Gulch Landfill operations, a special Advisory Committee was convened to locate new landfill sites. In its December 2003 report, the Advisory Committee recommended four sites for consideration, including Makaīwa Gulch. In December 2004, the City Council adopted Resolution 04-348 which:

- a. required the City to develop alternative technologies and extract the maximum recyclable materials, energy, and alternative products to minimize the waste placed in landfills in order “to effectively eliminate, to the extent possible, the need for a landfill by 2008”;



- b. selected the Waimanalo Gulch site as the site for the City’s landfill; and
- c. requested the City administration to immediately contact the Planning Commission, the State Department of Health, and the State Land Use Commission to satisfy any necessary requirements for continued use of Waimānalo Gulch as the City’s landfill site.

In May 2008, the State Land Use Commission approved an extension of the Waimānalo Gulch Sanitary Landfill land use permit until November 2009.

The Final Environmental Impact Statement (EIS) for proposed expansion of the Landfill by 93 acres was accepted in October 2008. In September 2009, the LUC approved a new Special Use Permit to allow the expansion, but required that after July 31, 2012, only ash and residue from the City’s H-Power plant can be deposited in the Landfill. Approval from the Department of Health will also be required before the landfill footprint can be expanded.

In 2009, the City reached agreement on a contract to ship 100,000 tons of waste per year from Kalaeloa Barbers Point Harbor to the Mainland in order to reduce the amount of waste being disposed at the Waimānalo Gulch Landfill. However, the City has cancelled the contract since permit problems and lawsuits have prevented any shipments, and the intent for entering into the contract was to fill the gap until a third boiler was added at the H-Power Plant, which is expected in late 2011.

The **Integrated Solid Waste Management Plan** was updated in 2008 and, following a public hearing and a 60-day public comment period, was submitted to Council for approval.

The remainder of the section provides general policies for solid waste handling and disposal in ‘Ewa.

#### **4.5.1 GENERAL POLICIES**

- Do not develop the Makaīwa Gulch area identified by the Mayor’s Advisory Committee in December 2003 as a landfill. It is in an area planned for residential use and is adjacent to the Ko ‘Olina Resort, which plays an important role in job creation for ‘Ewa.
- Analyze and approve siting and/or expansion of sanitary landfills based on island-wide studies and siting evaluations.
- For master-planned communities, plan, in consultation with the Department of Environmental Services, for how solid waste will be handled, to include estimates of solid waste to be generated by the communities, provisions for collection of solid waste, and provisions for and encouragement of recycling.

#### **4.6 DRAINAGE SYSTEMS**

Low-lying parts of the ‘Ewa Plain are subject to flooding during intense rainstorms. Flood control has typically been provided for urbanized areas through the development of concrete-lined channels to convey stormwaters to the ocean. Discharge of stormwater to the ocean, however, is a major source of non-point source pollution of nearshore waters, negatively affecting coral growth, fish populations and use of the shoreline for swimming, surfing, and other types of ocean recreation.

The federal government has initiated a major program to reduce nonpoint-source pollution, mandating response by the State and the counties. In general, the City requires all residential, commercial, public facilities, and transportation development and redevelopment projects to address stormwater quality through the use of best management practices in accordance with the City’s Rules Relating to Storm Drainage Standards. In many



watersheds, however, undeveloped mountain areas generate a disproportionately large share of the total storm flow, and no party appears to be responsible for mitigating the environmental impact.

Concrete-lined drainage channels can have other negative environmental impacts, including disruption of lateral shoreline access, beach erosion, down drift of channel mouths, and visual blight.

**Drainage improvements** are planned for:

- A major new system to drain Makaiwa Hills, Kapolei Business Park, and the industrial areas closest to the Barbers Point Deep Draft Harbor;
- Expansion of the channel at the western edge of Kalaeloa to provide additional capacity for the City of Kapolei;
- A system to drain the West Loch Drainage Basin, serving 'Ewa by Gentry and Ho'opili; and
- A system to drain the Kalo'i Gulch Drainage Basin.

The **Makaiwa Hills system** may have detention basins mauka of the H-1 Freeway and a concrete-lined channel to convey stormwaters to an ocean outlet just south of Kalaeloa Barbers Point Harbor. It is being planned by Kapolei Property Development LLC (KPD). KPD is also planning to expand the **existing channel on the western boundary of Kalaeloa**.

Drainage improvements in the **West Loch Drainage Basin** need to be constructed to handle stormwater runoff from existing and proposed projects located in the basin. These projects include the City's West Loch residential project, Phase I of the 'Ewa by Gentry residential project, and the proposed Ho'opili master-planned community project.

The developer for Phase I of the 'Ewa by Gentry East project had planned to construct a grass-lined drainage channel running immediately east of the project's boundary to terminate at a detention basin immediately makai of the Honouliuli National Wildlife Refuge. However, currently the developer is considering using a large retention pond to hold stormwaters, in lieu of constructing the grass-lined channel.

The **Kalo'i Gulch Drainage Basin** is one of the larger drainage basins in the region. It encompasses an area of approximately 7,140 acres, and has a peak design flow of approximately 11,500 cubic feet per second (cfs). Historically, the drainage pattern in this basin has flowed from the Wai'anae Mountain Range above Makakilo through the Kalo'i Gulch toward the ocean terminating at One'ula Beach Park. Floodwaters typically spread out in sheet flows through the former sugarcane fields below Farrington Highway.

Prior to 2000, drainage flow through the Kalo'i Gulch basin was constrained by the elevation of the OR&L right-of-way which formed a man-made barrier that impeded stormwater runoff. However, this constriction was addressed by the construction of a new railroad bridge in 2000.

In the interim until an ocean outlet is constructed, the 'Ewa Villages, 'Ewa by Gentry, and Ocean Pointe projects handle drainage within their projects through use of golf courses. The golf courses provide detention of stormwaters and meet the department of planning and permitting drainage requirements for stormwater runoff.

Other development projects in the basin include the University of Hawai'i West O'ahu campus and associated residential and commercial development which has not yet received City approval for its drainage master plan, and the Department of Hawaiian Home Lands East Kapolei project whose drainage master plan has been approved.

The drainage system serving the **Villages of Kapolei**, which consists of golf course retention and disposal of stormwater into large pits and a large ditch near the Kalaeloa boundary, may need to be augmented in the future.



Both the regional drainage system and the on-site drainage facilities for Kalaeloa need to be addressed during the redevelopment of **Kalaeloa**. The existing regional drainage channel and box culverts that discharge into the coral pit near the intersection of Fort Barrette Road and Franklin D. Roosevelt Road are inadequate to handle the runoff from the 100-year storm, according to the **Kalaeloa Master Plan**. In addition, the Master Plan notes that the Navy’s system of drywells, installed to handle runoff within Kalaeloa, do not conform to City standards.

See Exhibit 4.3 for the location of ‘Ewa Drainage Basins.

The remainder of the section provides general policies and guidelines for drainage systems in ‘Ewa.

**Exhibit 4.3**  
**‘Ewa Drainage Basins Map**





#### 4.6.1 GENERAL POLICIES

- Design drainage systems to emphasize flood control and minimization of nonpoint source pollution and the retention and/or detention of stormwater on-site and in appropriate open space and wetland areas.
- Use stormwater as a potential irregular source of water for recharge of the aquifer that should be retained for absorption rather than quickly moved to coastal waters.
- Use natural and man-made vegetated drainageways and retention basins as the preferred solution to drainage problems wherever they could promote water recharge, help control nonpoint source pollutants, and provide passive recreation benefits. However, concrete-lined channels can be permitted, despite their potential adverse environmental impacts, if there is no other reasonable alternative to meet specific design challenges.

#### 4.6.2 GUIDELINES

The following guidelines suggest how the general policies for drainage systems in 'Ewa should be implemented.

- **Retention and Detention** - Employ methods of retaining or detaining stormwater for gradual release as the preferred strategy for management of stormwater. Where feasible, use any open space, including parking lots, landscaped areas, mini and community parks, and public and private golf courses, to detain or infiltrate stormwater flows to reduce their volume and runoff rates and the amounts of sediments and pollutants transported.
- **Relation to the Regional Open Space Network** - To the extent possible, integrate planned improvements to the drainage system into the regional open space network by emphasizing the use of retention basins, creation of passive recreational areas, and recreational access for pedestrians and bicycles.
- **Preservation of Natural Gulches** - Preserve natural gulches on the slopes of the Wai'anae Range foothills that are within the Community Growth Boundary as part of the open space network.

The following guidelines apply specifically to development within the Kalo'i Gulch drainage basin.

- **Relation to the 'Ewa Village Master Plan and Other Previously Approved Developments in the Basin** - Insure that solutions to handling drainage problems on lands above 'Ewa Villages are compatible with the drainage design of the 'Ewa Villages Master Plan and other developments in the Kalo'i Gulch drainage basin which have already been approved. The 'Ewa Villages drainage design assumes that runoff will not exceed levels previously received from sugarcane fields north of the golf course, will enter the 'Ewa Villages golf course water retention areas through a number of dispersed channels, and will not be at velocities which would scour out the golf course water retention areas.

#### 4.7 SCHOOL FACILITIES

Statewide, the State Department of Education (DOE) faces an enormous shortfall in funding to meet projected needs for new classrooms. Act 245, 2007, established a system for collecting school impact fees from new residential developments. Developers are required to provide "their proportionate share of the land and the construction cost of new or expanded school facilities needed to serve new residential developments."

DOE is in the process of establishing the school impact districts required under the Act in order to collect land and money from developers. In January 2012, the Board of Education approved creation of a Leeward O'ahu Impact District that includes the Kapolei Complex and Campbell Complex areas in 'Ewa.

As shown in Table 4.3, the DOE has projected a need by 2030 for ten new elementary schools, three new intermediate schools, and two new high schools in 'Ewa. (Needs estimates could change if estimates of housing production and density or school operation policies and funding are revised.)



Conceptual locations of three new intermediate schools and two new high schools are shown on the Urban Land Use Map and the Public Facilities Map in Appendix A. Elementary schools are not mapped because their sites are of community rather than regional concern and should be determined as part of a master planning and design process. Sites have been reserved for all of the planned elementary schools, the three planned intermediate/middle schools, and one high school. (Minimum site size for elementary schools is 8 to 15 acres, for intermediate schools is 15 to 20 acres, and for high schools is 45 to 55 acres.)

Private schools play an important role in Hawai‘i with private school graduates averaging around 16 per cent of all graduates for the last 25 years. There were four private schools in ‘Ewa with enrollment of almost 1,300 students in the fall of 2008 which, compared with public school enrollment in ‘Ewa, is less than half what would be expected based on the statewide average.

The remainder of the section provides general policies and guidelines for school facilities development in ‘Ewa.



TABLE 4.3: EXISTING AND PLANNED PUBLIC SCHOOLS IN THE 'EWA DEVELOPMENT PLAN AREA				
School	FY 2011 Enrollment	Capacity	Site Reserved	Opening Date
<b>Elementary Schools</b>				
Campbell Complex				
'Ewa Beach Elementary	507	544	Existing	NA
'Ewa Elementary	1,003	798	Existing	NA
Holomua Elementary	1,382	1,264	Existing	NA
Iroquois Point Elementary	718	995	Existing	NA
Ka'imiloa Elementary	610	716	Existing	NA
Keone'ula Elementary	847	742	Existing	NA
Pōhākea Elementary	565	626	Existing	NA
Kapolei Complex				
Barbers Point Elementary	491	636	Existing	NA
Kapolei Elementary	1,043	1,233	Existing	NA
Makakilo Elementary	502	627	Existing	NA
Mauka Lani Elementary	563	702	Existing	NA
<b>Total</b>	<u>8,231</u>	<u>8,883</u>		
<b>Planned</b>				
Kapolei II Elementary (Mehana) <sup>1</sup>		400 to 750	X	2014
East Kapolei UH WOC I, II <sup>2,3</sup>		400 to 750	X	N.D.
East Kapolei DHHL <sup>2</sup>		400 to 750	X	N.D.
East Kapolei Ho'opili I, II, III <sup>2</sup>		1,200 to 2,250	X	N.D.
Maka'iwa Hills <sup>2</sup>		400 to 750	X	N.D.
Kapolei West <sup>2</sup>		400 to 750	X	N.D.
Ko 'Olina <sup>2</sup>		400 to 750	X	N.D.
<b>Total</b>		3,600 to 6,750		
<b>Intermediate/Middle School</b>				
'Ewa Makai Middle (Campbell Complex)	587	700	Existing	NA
'Ilima Intermediate (Campbell Complex)	777	1,330	Existing	NA
Kapolei Middle (Kapolei Complex)	1,424	1,744	Existing	NA
<b>Total</b>	<u>2,788</u>	<u>3,774</u>		
<b>Planned</b>				
East Kapolei Middle (DHHL) <sup>2</sup>		500 to 1,000	X	N.D.
East Kapolei Middle (Ho'opili) <sup>2</sup>		500 to 1,000	X	N.D.
West Kapolei Middle (Maka'iwa Hills) <sup>2</sup>		500 to 1,000	X	N.D.
<b>Total</b>		1,500 to 3,000		
<b>High School</b>				
Campbell High	2,639	2,022	Existing	NA
Kapolei High	2,107	1,841	Existing	NA
<b>Total</b>	<u>4,746</u>	<u>3,863</u>		
<b>Planned</b>				
East Kapolei High I (HHFDC land) <sup>2</sup>		800 to 1,600		N.D.
East Kapolei High II (Ho'opili) <sup>2</sup>		800 to 1,600	X	N.D.
<b>Total</b>		1,600 to 3,200		
<b>NOTES:</b>				
<sup>1</sup> Received appropriation for added design and construction funds in FY2012-2013.				
<sup>2</sup> No legislative appropriation.				
<sup>3</sup> Includes a UH WOC lab school.				
X Site Reserved				
NA Not Applicable				
N.D. Not Determined				
Source: State Department of Education Facilities Development Branch, 2011				



#### 4.7.1 GENERAL POLICIES

- **Project Review and Approval Assessment** - As new residential developments are reviewed as part of the project application review and approval process, request that the DOE report to the department of planning and permitting whether the DOE will be able to provide adequate school facilities, either at existing schools or at new school sites, so that needs from the proposed development can be met.
- **Fair Share Provisions** - Require developers to comply with DOE school impact fees requirements and pay their fair share of all costs needed to provide adequate school facilities for the children living in their developments.

#### 4.7.2 GUIDELINES

The following guidelines suggest how the general policies for schools facilities development in ‘Ewa should be implemented.

- **Schools as Community Centers** - Because of the difficult financial problems for all sectors, new communities are likely to have fewer churches, private social halls, and recreation facilities. As a result, schools may have to assume important functions as cultural and recreational centers and as meeting facilities. Request that the State DOE design school facilities to facilitate community use during nonschool hours and weekends.
- **Co-location with Parks** - Co-locate neighborhood or community parks with elementary and intermediate schools and coordinate design of facilities with the State DOE when needless duplication of parking and of athletic, recreation, and meeting facilities can be avoided.
- **Shared Facilities** - Coordinate the development and use of athletic facilities such as swimming pools and gymnasiums with the DOE where such facilities would maximize use and reduce duplication of function.
- **Fair Share Contribution** - Support the State Department of Education’s establishment of impact districts to obtain fair share requirements from developers of residential projects and enforce existing agreements to insure that adequate school facilities are in place at existing and new schools to meet the needs of residents.

#### 4.8 PUBLIC SAFETY FACILITIES

Table 4.4 provides a listing of existing and planned public safety facilities in the ‘Ewa Development Plan area.

To meet projected population and economic growth by 2035, the fire department estimates ‘Ewa will need five new fire stations. They also plan to establish an island-wide training facility at Kalaeloa.

Because police operate primarily in the field and do not have a need for outlying stations, only one substation is projected by the Police Department to be needed to serve the 2035 population of 164,500. A new regional station was built in the City of Kapolei on donated land and became operational in 2001. Land has been offered for a substation in the proposed Ho‘opili development.

The expected population growth and development of new communities and community facilities in ‘Ewa will result in a need for additional emergency medical service facilities and response units. The State Department of Health has not identified how many new stand-alone emergency medical service facilities in ‘Ewa will be needed to meet expected growth.



TABLE 4.4: EXISTING AND PLANNED PUBLIC SAFETY FACILITIES IN THE ‘EWA DEVELOPMENT PLAN AREA			
Facilities	Site	Service Area	Service Date
<b>Fire Stations</b>			
‘Ewa Beach <sup>1</sup>	‘Ewa Beach	‘Ewa by Gentry, Ocean Pointe, ‘Ewa Beach, Iroquois Point	Existing
Makakilo	Makakilo	Makakilo, Ko ‘Olina, Villages of Kapolei	Existing
Kapolei	Kapolei	Campbell Industrial Park, City of Kapolei, Kapolei Business Park	Existing
‘Ewa Beach <sup>2</sup>	Fort Weaver Road	‘Ewa by Gentry, Ocean Pointe, ‘Ewa Beach, Iroquois Point	2011
East Kapolei	DHHL East Kapolei	East Kapolei, Villages of Kapolei, UH West O‘ahu, Tenney Village, Kalaeloa	2011
Kalaeloa	Old Federal Fire Station Site	Kalaeloa, ‘Ewa, and Kapolei	N.D.
‘Ewa Villages	Tenney Village	West Loch, ‘Ewa Villages, East Kapolei	N.D.
Ko ‘Olina	Ko ‘Olina	Ko ‘Olina Resort	N.D.
Makaīwa Hills	Makaīwa Hills	Makaīwa Hills	N.D.
Kalaeloa Tactical Training Facility	Kalaeloa (Former BPNAS site)	Island-wide	N.D.
<b>Police Stations</b>			
‘Ewa Plains Regional Station	City of Kapolei	‘Ewa Region	Existing
Ho‘opili Substation	Ho‘opili	East Kapolei, ‘Ewa Beach	N.D.
<b>Emergency Medical Services Facilities</b>	DOH has not identified needed sites		
<b>NOTES:</b>			
<sup>1</sup> To be replaced with new station on Fort Weaver Road.			
<sup>2</sup> New.			
N.D. Not Determined.			

Population growth will also result in need for additional public emergency shelters. There is a state-wide shortage of shelters, compounded by the fact that around a third of the existing shelters need to be retrofitted if they are to withstand any hurricane strength winds, and few of the existing shelters are capable of withstanding a Category 3 hurricane like Hurricane ‘Iwa. Civil defense analysts expect 35 percent of the population will seek public shelter in a disaster. Based on that standard, ‘Ewa needed public shelter space for 29,000 residents in 2005, and will need space for 57,600 in 2035. Table 4.5 lists existing ‘Ewa shelters and their capacity.

It makes sense to supplement the public shelters with shelters in private buildings since most of the population is not expected to seek a public shelter during a disaster. A State law provides immunity to private organizations which create hurricane resistant shelters that meet State standards. There are no State or City programs providing incentives or support for private organizations who create hurricane shelters or individuals who build hurricane-resistant “safe rooms” in their homes. However, by 2012 at the latest, the building code will require that all new homes either have a safe room or be equipped with hurricane resistant glass.



**TABLE 4.5: EXISTING PUBLIC EMERGENCY SHELTERS IN ‘EWA, 2009**

<b>Shelter Location</b>	<b>Capacity</b>
Barbers Point Elementary	385
Campbell High (S/P)	5,877
‘Ewa Beach Elementary	1,966
‘Ewa Elementary	2,689
‘Ilima Intermediate (S/P)	2,629
Ka‘imiloa Elementary	1,748
Kapolei Elementary (S)	1,255
Kapolei High (S)	511
Makakilo Elementary	2,088
Mauka Lani Elementary (S)	874
Pōhākea Elementary	1,165
<b>TOTAL</b>	<b>21,187</b>
<b>NOTES:</b>	
S	Facility designated to serve as a Special Needs Shelter and General Population Shelter.
P	Pet Friendly Shelter co-located with General Population Shelter (and, in some cases, Special Needs Shelter).

#### 4.8.1 GENERAL POLICIES

- Provide adequate staffing and facilities to ensure public safety.
- Approve new development only if staffing and facilities will be adequate to provide fire and police protection and emergency medical service when development is completed.
- Survey and retrofit, as appropriate, Department of Education and other public buildings to make up the shortfall in hurricane resistant shelters.
- Require new City buildings which are “critical facilities used for public assembly and able to perform as shelters” to be designed and built to withstand a Category 3 hurricane.
- Provide incentives for private organizations to create hurricane resistant shelter areas in their facilities and for homes to include hurricane resistant “safe rooms.”

#### 4.9 OTHER COMMUNITY FACILITIES

Other existing and proposed community facilities shown on the Urban Land Use Map in Appendix A include hospitals, and colleges. Key facilities include the planned University of Hawai‘i West O‘ahu campus. Hawai‘i Medical Center West is the major medical facility serving the ‘Ewa region.

Location of new community facilities should comply with the following policies:

- **Colleges and Hospitals** - In most cases, locate colleges and hospitals in urban areas near transit nodes, commercial centers, or medium density residential areas.
- **Correctional Facilities** - In most cases, locate correctional facilities on industrial or agricultural lands. (However, a youth detention facility was appropriately located within the City of Kapolei as part of a relocated Family Court.) If such a facility is proposed for lands not planned for industrial or agricultural use, a City review and approval process that provides for public review, complete analysis, and policy approval should be used.



Antennas have been around as long as we have had radio and television services. Antennas associated with communication purposes have grown tremendously especially since the U.S. introduction of mobile communication devices in the early 1980s. While the telecommunication industry has provided more convenient communication capabilities for individuals, it has also increased the public agencies' ability to provide faster and more efficient response to those in need, particularly on an emergency basis.

While the benefits of the telecommunications industry cannot be disputed, communities have opposed the antennas due to aesthetic impacts, particularly on public views and on neighborhood character. Their visibility has increased, especially where antennas are mounted on free-standing towers.

The general public has also raised concerns about the environmental effects of electromagnetic field exposure associated with radio transmissions, as evidenced by the presence of antennas. However, the Federal Communications Commission (FCC) is responsible for evaluating the human environmental effects of radio frequency (RF) emissions from FCC-regulated transmitters. The federal guidelines specifically preclude local decisions affecting environmental effects of radio frequency emissions, assuming that the provider is in compliance with the Commission's RF rules.

The following are general principles governing utilization of antennas:

- Encourage co-location of antennas; towers should host the facilities of more than one service provider to minimize their proliferation and reduce visual impacts.
- Mount antennas onto existing buildings or structures so that public scenic views and open spaces will not be negatively affected. However, except for the occupant's personal use, antennas on single-family dwelling roofs in residential districts are not appropriate.
- Use stealth technology (e.g. towers disguised as trees) especially on free-standing antenna towers in order to blend in with the surrounding environment and minimize visual impacts.



## **CHAPTER 5. IMPLEMENTATION**

Implementation of the **‘Ewa Development Plan** will be accomplished by:

- Limiting urban development to areas within the Community Growth Boundary to support the vision for protection of agricultural lands and open space in ‘Ewa;
- Guiding development in areas of critical concern including Kalaeloa through Special Area Plans;
- Guiding public investment in infrastructure through Functional Plans that support the vision, and implement the policies and guidelines of the Development Plan;
- Recommending approval, approval with modifications or conditions, or both denial of developments seeking zoning and other development approvals based on how well they support the vision for ‘Ewa’s development and implement the Development Plan’s policies, and guidelines;
- Implementing Development Plan priorities through the Public Infrastructure Map amendments and the City’s annual budget process;
- Evaluating progress in fulfilling the vision of the **‘Ewa Development Plan** every two years and presenting the results of the evaluation in the **Biennial Report**; and
- Conducting a review of the vision, policies, principles, guidelines, and Capital Improvement Program (CIP) priority investments of the **‘Ewa Development Plan** every five years and recommending revisions as necessary.

### **5.1 PHASING OF DEVELOPMENT**

Active projects in various stages of the development process are proceeding for all the undeveloped areas in ‘Ewa within the Community Growth Boundary.

1. As identified in Table 2.1, residential projects with estimated development capacity of almost 35,000 units either can exempt themselves from County zoning or already have the zoning needed to proceed to apply for subdivision approval, and construction and building permits. These projects, subject to availability of infrastructure, are the projects likely to be developed first. These projects, if subject to County zoning, will have to meet unilateral agreement conditions (if adopted as part of zoning approval for each of these projects), and subdivision approval requirements that help insure that adequate infrastructure is available, and that project development implements key elements of the Plan vision.
2. Finally, there are projects which need the State Land Use Commission to approve a change from the State Agricultural District to the Urban District and then the City Council to approve a zone change. These projects have an estimated residential development capacity of over 13,000 units.

The City Council, in reviewing and deciding on the zone changes for these latter projects, will have the opportunity to evaluate the availability of infrastructure and require conditions that the developer must meet as a condition of zoning to insure infrastructure adequacy and attainment of key elements of the Plan vision.

However, there are two major projects involving substantial amounts of residential, commercial, and office development which are not required to gain Council approval or incorporate conditions regarding infrastructure adequacy or other elements of the ‘Ewa Plan vision.

- The Department of Hawaiian Home Lands (DHHL) currently is developing 630 acres in ‘Ewa, located along the Kualaka‘i Parkway. Because the DHHL has the power under the State Constitution to exempt itself from all State and County land use laws, rules and regulations, the City has no ability to require DHHL to follow the ‘Ewa Plan vision, policies and guidelines. Over 2,600 residential units and a million square feet of retail and office space could be developed under DHHL’s plans for the area, as of 2010.



- In 2002, the State Legislature transferred redevelopment responsibility for Kalaeloa to the Hawai‘i Community Development Authority (HCDA). HCDA also has the power, under its establishing statutes, to exempt itself from County land use laws, rules and regulations. The HCDA estimates that almost 6,500 dwelling units could be developed at Kalaeloa by 2025, and over 116 thousand square feet of commercial space, 725 thousand square feet of office space, 1.8 million square feet of light industrial space, and 470 thousand square feet of light industrial mixed use space.

The City will seek the cooperation of the Department of Hawaiian Home Lands and the Hawai‘i Community Development Authority in implementing the vision for ‘Ewa’s development.

### 5.1.1 PRIVATE DEVELOPMENT PHASING

The **‘Ewa Development Plan** provides a clear signal to private landowners and developers as to where development will be supported.

The **Urban Expansion Area** is shown on the Phasing Map in Appendix A. The Urban Expansion Area shows where new urban development is occurring and where applications for new urban development will be accepted for processing.

Projects in the Urban Expansion Area needing zone changes and other development approvals would be eligible for processing with the adoption of the revised Plan and will be supported if:

- The project implements the vision for ‘Ewa and relevant policies and guidelines, and
- Adequate infrastructure will be available to meet the demand resulting from the project.

No additional areas should be approved for development beyond the Community Growth Boundary in order to protect agricultural and preservation lands.

### 5.1.2 PUBLIC FACILITY INVESTMENT PRIORITIES

The regional directed growth strategy requires the cooperation of both public and private agencies in planning, financing, and constructing infrastructure. The City must take an active role in planning infrastructure and coordinating construction of needed infrastructure, such as expansion of Honouliuli Wastewater Treatment Plant and recovery of nonpotable water from its effluent, development of drainage systems for the Kalo‘i Gulch and Kapolei watersheds, provision of recreational open spaces, and development of the regional transportation system, parks, police and fire facilities.

Significant Capital Improvement Projects of the highest priority for the **‘Ewa Development Plan** are:

- A dedicated Rapid Transit Corridor linking the City of Kapolei, Kalaeloa, the University of Hawai‘i West O‘ahu Campus, and Waipahū;
- Elementary, middle, and high schools identified by the State Department of Education as needed by 2035, as shown in Table 4.3;
- Additional City offices in the City of Kapolei;
- Additional State offices in the City of Kapolei;
- The University of Hawai‘i West O‘ahu campus and related development near the intersection of Kualaka‘i Parkway and Farrington Highway;
- Uncompleted elements of the **‘Ewa Highway Master Plan**, and the East-West arterial between UH West O‘ahu and Fort Weaver Road;
- A network of collector / connector roads (at approximately 1/4 mile intervals) where feasible;



- Drainage improvements for Kalo‘i Gulch, Kapolei, and West Loch Watersheds;
- New potable and non-potable water sources; and
- Expanded wastewater treatment plant capacity, and recycling of nonpotable water reclaimed from wastewater effluent at the Honouliuli Wastewater Treatment Plant.

## **5.2 SPECIAL AREA PLANS**

Special Area Plans provide more detailed policies, principles, and guidelines than the Development Plan for areas requiring particular attention. The form and content of Special Area Plans depends on what characteristics and issues need to be addressed in greater detail for the planning and guiding of development or use within the Special Area.

Special Area Plans can be used to guide land use development and infrastructure investment in Special Districts, Redevelopment Districts, or Resource Areas. Plans for Special Districts would provide guidance for development and infrastructure investment in areas with distinct historic or design character or significant public views. Plans for Redevelopment Districts would provide strategies for the revitalization or redevelopment of an area. Plans for Resource Areas would provide resource management strategies for areas with particular natural or cultural resource values.

Kalaeloa is the only area in ‘Ewa currently identified for Special Area Plan status. Its Special Area Plan is a combination of a Redevelopment District and Resource Area Plan.

The **Kalaeloa Redevelopment Plan**, a Special Area Plan of the **‘Ewa Development Plan**, was prepared by the Barbers Point Naval Air Station Redevelopment Commission in December 2000 under guidelines of the Federal Base Realignment and Closure Act (BRAC). It was accepted by the City Council as the Special Area Plan for Kalaeloa in April 2001.

Responsibility for planning for and coordinating redevelopment of Kalaeloa was transferred from the Redevelopment Commission to the Hawaiian Community Development Authority (HCDA) in 2002 by the Hawai‘i State Legislature. HCDA has prepared a community-based **Kalaeloa Master Plan** that was approved by the HCDA Board and the Governor in 2006, and should be submitted to the City Council for acceptance as the revised Special Area Plan for Kalaeloa.

## **5.3 FUNCTIONAL PLANS**

Functional Plans are meant to provide guiding principles and strategies, which will be used by the various functional agencies to determine needs, assign priorities, phase infrastructure and facilities development, and secure financing to meet the needs identified in the Development Plan.

City agencies responsible for developing infrastructure and public facilities shall review existing Functional Plans, and in consultation with the director of planning and permitting, update the existing Plans or prepare and submit to the Mayor new long-range Functional Plans for providing facilities and services for ‘Ewa to the year 2035.

Agencies with Functional Planning responsibilities (and representative plans) include:

- Department of Planning and Permitting;
- Department of Design and Construction;
- Department of Environmental Services (Solid Waste Management Plan);
- Honolulu Fire Department;



- Honolulu Emergency Services Department;
- O‘ahu Metropolitan Planning Organization (O‘ahu Regional Transportation Plan);
- Department of Parks and Recreation;
- Honolulu Police Department;
- Department of Transportation Services (O‘ahu Regional Transportation Plan); and
- Board of Water Supply (O‘ahu Water Management Plan).

The Functional Plans should provide:

- A Resource-constrained Long-Range Capital Improvement Program with priorities;
- A Long-Range Financing Plan, with any necessary new revenue measures;
- A Development Schedule with first priority to areas designated for earliest development; and
- Service and facility design standards, including Level of Service Guidelines for determining infrastructure adequacy.

A resource-constrained program is one that identifies the fiscal resources that can be reasonably expected to be available to finance the improvements.

Level of Service Guidelines for determining adequacy of public facilities and infrastructure to support new development shall be established by the responsible City line agencies as part of their review and update of Functional Plans. Level of Service Guidelines for infrastructure and utilities which are primary State agency responsibilities (such as schools) shall be established by the Department of Planning and Permitting in consultation with the responsible State agencies.

In preparing the Functional Plans, a proactive public involvement process should be established which provides the public with access to complete information about infrastructure and public facility needs assessment, alternatives evaluation, and financing. Outreach activities should involve the Neighborhood Boards, community organizations, landowners, and others who might be significantly affected by the infrastructure or public facilities projects to be developed under the Functional Plan.

The process should be characterized by opportunities for early and continuing involvement, timely public notice, public access to information needed to evaluate the decision, and the opportunity to suggest alternatives and to express preferences.

#### **5.4 REVIEW OF ZONING AND OTHER DEVELOPMENT APPLICATIONS**

A primary way in which the vision of the **‘Ewa Development Plan** will guide land use will be through the review of applications for zone changes and other development approvals. Approval for all development projects should be based on the extent to which the project supports the policies, and guidelines of the Development Plan.

All applications for projects requiring zone changes will be reviewed by the department of planning and permitting for consistency with the policies, principles, and guidelines of the ‘Ewa Development Plan during the Zone Change Application process. Those projects requiring environmental assessments shall follow the provisions of Hawai‘i Revised Statutes, Chapter 343.

All projects involving significant zone changes will require either an Environmental Assessment or an Environmental Impact Statement (See Section 5.4.1) which must include a Project Master Plan when 25 acres or more are involved (See Section 5.4.2). This is submitted to the Department of Planning and Permitting for review



and acceptance prior to initiation of the first Zone Change Application for the project. (See definition of significant zone change in Section 5.4.1 below, and the definition of Project Master Plan in Section 5.4.2 below.)

#### **5.4.1 ENVIRONMENTAL ASSESSMENT**

Projects involving a significant zone change will be required to submit an Environmental Assessment (prepared in compliance with procedures for Chapter 343, Hawai‘i Revised Statutes) to the department of planning and permitting to help the Department determine whether the project involves a significant environmental impact and if the project is supportive of the vision for ‘Ewa’s development.

A project will be considered to involve a significant zone change if:

- The application involves a zone change of 25 acres or more to any zoning district or combination of zoning districts, excluding preservation and agricultural zoning districts; or
- The project is more than 10 acres and involves a change from one zoning district to a Residential, or Country zoning district; or
- The project is more than 5 acres and involves a change from one zoning district to an Apartment, Resort, Commercial, Industrial, or Mixed Use zoning district; or
- The project would have major social, environmental, or policy impacts, or cumulative impacts due to a series of applications in the same area.

The director of the department of planning and permitting will determine, based on review of the Environmental Assessment, whether an Environmental Impact Statement (prepared in compliance with procedures for Chapter 343, Hawai‘i Revised Statutes) will be required or whether a Finding of No Significant Impact should be issued.

In applying for a zoning change, the applicant must either:

- Receive a determination from the director of planning and permitting that the project does not involve a significant zone change; or
- Submit an Environmental Assessment or Environmental Impact Statement with the zone change application.

Before an application for a significant zone change can be accepted for processing by the Department of Planning and Permitting, the applicant must either:

- Receive a Finding of No Significant Impact (FONSI) from the director of planning and permitting; or
- Receive an acceptance of a Final Environmental Impact Statement (FEIS) for the project from the director of planning and permitting.

All Environmental Assessments/Environmental Impact Statements (EA/EIS) required for a significant zone change involving 25 acres or more should include a Project Master Plan (See Section 5.4.2 following). The scope of the EA/EIS must cover, at a minimum, the specific development associated with a particular zone change application, but at the option of the applicant, may cover subsequent phases of a larger project, as well.

Zone change applications for a project already assessed under the National Environmental Policy Act, Hawai‘i Revised Statutes Chapter 343, Revised Ordinances of Honolulu Chapter 25 (Shoreline Management), or a preceding zoning change application, will not require a new Environmental Assessment so long as the director of planning and permitting determines that the desired zoning and land use generally conform to that described in the existing Environmental Assessment/Environmental Impact Statement.



## 5.4.2 PROJECT MASTER PLANS

The Project Master Plan is intended solely as a guide to help describe in words and illustrations how a project promotes the vision, policies, and guidelines for ‘Ewa.

Projects associated with a significant zone change for 25 acres or more, shall include a Project Master Plan as part of the Environmental Assessment or Environmental Impact Statement submitted to the director of planning and permitting. The Project Master Plan shall cover all project phases. It shall be reviewed to determine whether the project supports the vision, policies, and guidelines of the **‘Ewa Development Plan**. In the event a FONSI or Final EIS has already been accepted by the City for a particular project, a subsequent Project Master Plan will not be required.

The Project Master Plan should be based on the best information available to the applicant when the Zone Change Application is submitted to the City.

### 5.4.2.1 Coverage and Scope

The Project Master Plan should cover all phases of the project and should describe, using narrative and graphic illustration, how the project conforms to the vision for ‘Ewa, and the relevant policies, and guidelines for the project site, the surrounding lands, and the region.

### 5.4.2.2 Key Elements

While the scope and detail will vary according to the scope and complexity of the project, the Project Master Plan should contain the following elements. When a key element enumerated below is adequately addressed elsewhere in an EA/EIS, discussion of related issues should be referenced within the Master Plan portion of the document.

- **Statement of Consistency with the ‘Ewa Development Plan Vision** - The Master Plan should indicate how the project supports the vision, policies, and guidelines of the **‘Ewa Development Plan**.
- **Site Analysis** - The Master Plan should identify how the proposed development physically relates to prominent existing site features, views identified in Table 3.2 and on the Open Space Map in Appendix A, and surrounding urban or urbanizing areas and should describe any related opportunities and constraints.
- **Land Use** - The Master Plan should indicate the proposed pattern of land uses by general zoning district category.
  - Land uses proposed for lands in any future development phases that are not included in the current Zone Change Application will be considered only conceptual and intended to serve only as a working guide for future development.
  - In larger projects, residential neighborhoods should be designated, and concepts intended to create a sense of neighborhood should be described.
  - The Master Plan should identify where the community’s “main street” or village or town center is located and show how any planned commercial development will help create a pedestrian friendly environment for that center.
  - For projects that involve multiple uses, the intended relationship between zoning districts should be described.
- **Open Space** - The Master Plan should discuss open space as a component of the overall land use element, and should indicate how the proposed development promotes the Development Plan open space and guidelines and the vision of an integrated regional open space system.
- **Circulation** - The Master Plan should indicate:



- General street patterns and the application of street and block standards which minimize dead end streets and provide adequate connectivity;
- Intended connections to the regional roadway network and adjacent communities; and
- Potential transit routes and pedestrian and bicycle routes.
- **Design Theme or Character** - The Master Plan should depict, with sketches, photos or descriptions, the intended general urban design of the area. These vignettes should be represented and understood to be conceptual depictions of the potential general design theme of the project.
- **Telecommunications** - The Master Plan should indicate the sites and network conduit facilities that would be provided to meet expected telecommunications infrastructure needs, if applicable.

#### **5.4.2.3 Review Procedures**

The department of planning and permitting shall review the Project Master Plan concurrently with the Environmental Assessment/Environmental Impact Statement and shall determine whether the Project Master Plan supports the **‘Ewa Development Plan** vision or whether changes are needed.

#### **5.4.2.4 Modification of Master Plans for Future Phases**

Often, projects are developed in phases. As a result, the Project Master Plan is likely to cover more land than the developer is currently requesting for a zone change. The feasibility and desirability of plans for later phases of the Project Master Plan can be greatly altered in light of more detailed study of site characteristics and site planning, or change in market forces or government policies.

As a result, elements of Master Plans covering lands in phases which are not included in a current Zone Change Application should be considered only conceptual and intended to serve only as a working guide for future development. Changes to these parts of a Master Plan can be made by the developer at any time without requiring approval by the City.

If a Master Plan has been revised in planning for a subsequent phase of a project, an updated version of the Master Plan should be submitted with the zone change application for that phase. No new Environmental Assessment or Master Plan review should be required unless there has been a major alteration in the project vision and land uses from that proposed in the original Master Plan.

### **5.4.3 ADEQUATE FACILITIES REQUIREMENT**

All projects requesting zone changes shall be reviewed to determine if adequate public facilities and infrastructure will be available to meet the needs created as a result of the development. Level of Service Guidelines to define adequate public facilities and infrastructure requirements will be established during the Capital Improvement Program.

In order to guide development and growth in an orderly manner as required by the City’s **General Plan**, zoning and other development approvals for new developments should be approved only if the responsible City and State agencies indicate that adequate public facilities and utilities will be available at the time of occupancy or if conditions the functional agency indicates are necessary to assure adequacy are otherwise sufficiently addressed.

The department of planning and permitting will review and summarize any individual agency’s findings regarding public facilities and utilities adequacy which are raised as part of the EA/EIS process. The department of planning and permitting will address these findings and any additional agency comments submitted as part of the agency



review of the zone change application, and will recommend conditions that should be included in the Unilateral Agreement or Development Agreement to insure adequacy of facilities.

#### **5.4.4 ZONING APPLICATION REVIEW**

Zoning applications will be reviewed by the Department of Planning and Permitting for consistency with the General Plan, the ‘Ewa Development Plan, and any applicable Special Area Plan provisions as part of the Zone Change application review.

The director of planning and permitting will recommend either approval, approval with changes or conditions, or both denial within the prescribed period as set forth in ROH Section 21-2.40, and the Director’s written review of the application shall address the consistency or inconsistency of the project with the General Plan, the ‘Ewa Development Plan and any applicable Special Area Plan and shall become part of the zone change report which will be sent to the Planning Commission and the City Council.

#### **5.4.5 UNILATERAL AGREEMENTS**

Before the enactment of an ordinance for a zone change, conditions may be associated with the zone change approval. These conditions are set forth in the applicant’s Unilateral Agreement which is recorded with the Bureau of Conveyances and/or the Land Court so that the conditions set forth in the agreement run with the land and bind all subsequent owners of the property.

The director of planning and permitting evaluates zone change requests and may initially recommend conditions of approval in a report to the Planning Commission which evaluates the requested zone change and recommends approval, denial or approval with conditions. The director’s recommendations and the Planning Commission recommendations are sent to the City Council which makes the final decision on the proposed development, including what conditions should be included in the Unilateral Agreement.

In the evaluation, the director of planning and permitting evaluates the proposed zone change for consistency with the ‘Ewa Development Plan vision, policies and guidelines. In addition, Project Master Plans submitted for large projects at the time of the zone change application may be referenced as a working guide in formulating conditions of approval.

#### **5.4.6 DEVELOPMENT AGREEMENTS**

Before the enactment of an ordinance for a zone change, the City and the applicant may negotiate a Development Agreement. The Development Agreement sets forth mutually acceptable contractual conditions agreed upon by the City and the applicant once an ordinance for a zoning change has been approved. The Development Agreement conditions are recorded with the Bureau of Conveyances and/or the Land Court so that the conditions of the agreement run with the land or both bind all subsequent owners of the property.

Development agreements negotiated by the City Council shall be consistent with the Development Plan vision for ‘Ewa and should incorporate key conditions that are necessary to implement the Development Plan vision.

#### **5.5 ANNUAL CIP REVIEW**

Annually, the director of planning and permitting will work jointly with the director of budget and fiscal services and the City agencies to review all projects in the City’s Capital Improvement Program (CIP) budget for



conformance to the purposes of the **General Plan**, the **‘Ewa Development Plan**, and other Development Plans, any applicable Special Area Plan provisions, and the appropriate Functional Plans. The director of planning and permitting will make a written report of findings in the budget submittal to the Council, pursuant to Charter Section 6-1503.

Public review of how projects in the City’s CIP budget help accomplish the vision of the **‘Ewa Development Plan** should be a high priority. Public review should be encouraged both in the screening of agency CIP budget proposals in the preliminary draft CIP Budget (which is available in November), in review of projects included in the Draft CIP Budget (typically completed sometime in January or February), and in the City Council’s formal public review and CIP Budget adoption processes.

## **5.6 BIENNIAL REPORT**

Every two years, the department of planning and permitting prepares the **Biennial Report**. The **Report** is a review of the City in terms of the **General Plan** and the Development Plans.

Each Biennial Report should address the achievements and progress in fulfilling the vision of the **‘Ewa Development Plan**.

## **5.7 FIVE YEAR DEVELOPMENT PLAN REVIEW**

The department of planning and permitting shall conduct a comprehensive review of the **‘Ewa Development Plan** and shall report its findings and recommended revisions to the Planning Commission and the City Council five years after adoption and every five years thereafter.

In the Five Year review, the **‘Ewa Development Plan** will be evaluated to see if the regional vision, policies, guidelines, and implementing actions are still appropriate.

## **5.8 DEVELOPMENT PLAN COMMON PROVISIONS AND EXISTING LAND USE APPROVALS**

This Development Plan will go into effect upon adoption by ordinance. At that time, the revised Development Plan will become a self-contained document, not reliant on the Development Plan Common Provisions which formerly applied to the **‘Ewa Development Plan** as well as all the other Development Plans.

Land use approvals granted under previously approved Development Plan amendments will remain in force and guide zoning decisions unless clearly inconsistent with the vision and policies of the **‘Ewa Development Plan**.

Development can proceed in accordance with existing zoning, Unilateral Agreements, and approved Urban Design Plans.

If an Environmental Assessment or Environmental Impact Statement (EA/EIS) was accepted in the course of a Development Plan land use approval for a project, it should be acceptable to meet the requirement for an initial project EA/EIS when zone change applications are submitted for subsequent phases of the project unless the project scope and land uses are being significantly changed from that described in the initial EA/EIS.



## 5.9 RELATION TO GENERAL PLAN POPULATION GUIDELINES

The **‘Ewa Development Plan** implements the **General Plan** population distribution policies (in Population Objective C) as follows:

- ‘Ewa’s projected share of O‘ahu population in 2025 (13.8 percent) will be slightly above the **General Plan** guideline of 13 percent;
- Development will be encouraged within the secondary urban center at Kapolei and the urban fringe areas in ‘Ewa; and
- The recommended land use pattern also implements Population Objective C, Policy 3, which is to limit growth in areas outside the PUC, Central O‘ahu, and ‘Ewa so that the suburban and country character of these outlying areas can be maintained.

The **General Plan** population distribution guidelines will continue to be used as a guide to direct the pattern of growth and development in the ‘Ewa Development Plan Area. Assessments of this performance will be reported in both the Biennial Report and in the Five Year Reviews of the Development Plan.

Under the **‘Ewa Development Plan**, all proposed projects will be evaluated against how well they fulfill the vision for ‘Ewa set forth in the Development Plan and how closely they meet the policies, principles, and guidelines selected to implement that vision.

## 5.10 REVIEW AND REVISION OF DEVELOPMENT CODES

To insure that the vision, policies, and guidelines of the **‘Ewa Development Plan** and other Development Plans and Sustainable Communities Plans are implemented, current regulatory codes and standards should be reviewed and revised, as necessary, including the following:

- **Land Use Ordinance** (Chapter 21, Revised Ordinances of Honolulu). Zoning code standards and the zoning map for ‘Ewa need to be revised to reflect policies, principles and guidelines in the **‘Ewa Development Plan**.
- **Subdivision Rules and Regulations** (Department of Planning and Permitting, pursuant to Chapter 22, Revised Ordinances of Honolulu). Public right-of-way standards used for subdivision and consolidation of land need to be revised to reflect transportation policies, principles, and guidelines in the Development Plan.
- **Traffic Standard Manual** (Department of Transportation Services, July 1976, as revised). Standards which are applied to local and most collector/connector streets need to be revised to reflect transportation policies, principles, and guidelines in the **‘Ewa Development Plan**.
- **State Highways Division Procedures Manual**, Vol. 8, Chapter 5, Section 4 (State Department of Transportation). These State highway standards need to be reviewed to identify provisions which may conflict with the transportation policies, principles, and guidelines in the **‘Ewa Development Plan**.
- **Standard Details for Public Works Construction** (Honolulu Department of Public Works with Kaua‘i, Maui, and Hawai‘i County Departments of Public Works, September 1984). Engineering standards for the dedication of public works construction need to be revised to reflect **‘Ewa Development Plan** principles and guidelines.
- **Storm Drainage Standards** (Department of Planning and Permitting, January 2000). Standards for the dedication of drainage systems to incorporate grassed swales and retention basins into the design need to be created to reflect the Development Plan policies, principles, and guidelines for open space.



- **Park Dedication Rules and Regulations** (Department of Planning and Permitting, pursuant to Chapter 22, Article 7, Revised Ordinances of Honolulu). Regulations need to be reviewed to determine if passive drainage systems, which are designed for recreation use, should count toward park dedication requirements, especially in cases where the area would exceed the amount of land that would be required under current rules and regulations.
- **Environmental Services Design Standards** (Department of Environmental Services Design Standards, Volumes I and II) and the 1990 Revised Ordinance of Honolulu, Chapter 14 (relating to sewer services). These standards and ordinance may require review to further implement Development Plan policies and guidelines.

## 5.11 IMPLEMENTATION MATRIX

This section provides a summary of the Plan’s policies and guidelines from Chapters 3 and 4 to help understand how the Plan will be implemented. This implementation matrix presents the policies and guidelines as generalized and consolidated statements. Chapters 3 and 4 should be consulted for the specific language of each policy or guideline.

For each policy and guideline statement, the matrix identifies:

- The regulatory code or program for effecting implementation,
- Agencies with responsibility for implementation, and
- The role of each agency.

Implementation of the policies and guidelines will depend on each agency’s priorities and availability of resources.

The department of planning and permitting is either a regulator or an implementer for many plan components, while simultaneously acting as the advocate for implementation of all the Plan vision elements and policies.

The key to abbreviations used in the table is found at the end of the table.

Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>OPEN SPACE</b>			
Provide long-range protection for diversified agriculture on lands outside Community Growth Boundary. Protect scenic views and natural, cultural, and historic resources.	SLUDBA	LUC DPP	Regulator Advocate/ Regulator
	ZC	DPP	Regulator
<b>Mountain Areas</b>			
Protect and expand access to recreational resources in the mountains. Acquire and maintain a public campground and hiking trails in the area <i>mauka</i> of the Community Growth Boundary on the Wai‘anae Range. Acquire and maintain public access to mountain trails in the Pālehua Ridge area via Pālehua Road and Makakilo Drive.	State Trails State Parks	DLNR	Implementer/ Regulator
	ZC/UA UDP	DPP	Regulator
Maintain the forest at higher elevations in the State Conservation District. Plan utility corridors and other uses to avoid disturbance to areas with high concentrations of native species.	Cons Distr	LUC	Regulator
		DLNR	Implementer
Identify and protect areas that are important to Native Hawaiian cultural practices.	Cons Distr	LUC DLNR	Regulator Implementer
	Hist Pres	DLNR	Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>Natural Gulches and Drainageways</b>			
Preserve the natural gulches on the slopes of the Wai‘anae Range foothills within the Community Growth Boundary as part of the open space system.	ZC	DPP	Advocate
	LUO SUB	DPP	Regulator
Integrate planned improvements to the ‘Ewa drainage systems into the regional open space network by emphasizing the use of retention basins and recreational access in the design approach.	Drain MP	DPP	Regulator
View drainageways and utility corridors as opportunities to link major open spaces with pedestrian and bike paths along open corridors in order to create the regional open space network.	Drain MP UDP	DPP	Regulator
Where practical, retain drainageways as natural or man-made vegetated channels rather than concrete channels.	Drain MP	DPP	Regulator
<b>Shoreline Areas</b>			
Protect and expand access to recreational resources at the shoreline and in the ocean. Provide public pedestrian access, with limited improvements (e.g., parking, potable water supply), except where access is restricted by the military for security reasons.	SMA SUB Shore Stbk	DPP	Regulator
Maintain and enhance near-shore wetlands and mangroves as wildlife habitats.	ESA/MBTA	USFWS/ NOAA	Implementer Regulator
		USACE	Regulator
		DLNR	Implementer Regulator
	INRMP	USDOD	Implementer
	ZC	DPP	Advocate
	SMA LUO/UA	DPP	Regulator
Identify and protect areas that are important to Native Hawaiian cultural practices.	Cons Distr	LUC DLNR	Regulator Implementer
	Hist Pres	DLNR	Regulator
Coordinate private and public landowners’ efforts to create continuous shoreline easements to ensure the maximum feasible degree of lateral public access.	KMP	HCDA	Regulator
	SMA SUB Shore Stbk UDP	DPP	Regulator
Provide, at a minimum, a 60-foot setback along the shoreline, and, where possible, expand the setback to 150 feet where justified, based on historic or adopted projected coastal erosion rates.	SUB Shore Stbk	DPP	Regulator
Analyze the possible impact of sea level rise for new public and private projects in shoreline areas and incorporate, where appropriate and feasible, measures to reduce risks and increase resiliency to impacts of sea level rise.	CZM	OP	Regulator
	SMA SUB Shore Stbk	DPP	Regulator



<b>Table 5.1: Implementation Matrix</b>			
<b>Policies and Guidelines Statements</b>	<b>Programs</b>	<b>Agencies</b>	<b>Roles</b>
Avoid the use of breakwaters or jetties at the Ocean Pointe/Hoakalei marina entrance in order to preserve surf sites.	SMA Shore Stbk	DPP	Regulator
Expand limited public access to the shoreline waters of West Loch beyond the West Loch Shoreline Park.	INRMP	DOD	Regulator Implementer
<b>Agricultural Areas</b>			
Permit facilities necessary to support intensive cultivation of arable agricultural lands.	Agric Distr	LUC	Regulator
	LUO	DPP	Regulator
Permit facilities to support limited outdoor recreation use, such as camping, horseback riding, and hiking, in areas where agricultural use is not feasible.	Agric Distr	LUC	Regulator
	SUP LUO	DPP	Regulator
Permit residential use only to the extent that it is accessory to the agricultural use.	LUO	DPP	Regulator
Design and locate buildings and other facilities that are accessory to an agricultural operation to minimize impact on nearby urban areas, arterial roads, and major collector streets.	LUO	DPP	Regulator
<b>Golf Courses</b>			
Locate and design golf courses to optimize their function as drainage retention areas.	UDP Drain MP	DPP	Regulator
Design golf courses to consider public safety and potential impacts on views and recreational resources, and accommodate and incorporate pedestrian paths and bikeways.	UDP LUO	DPP	Regulator
<b>Wildland-Urban Fire Hazard Setbacks</b>			
As determined appropriate by the Honolulu Fire Department, require residential or commercial developments that are adjacent either to preservation areas within the Community Growth Boundary or to lands within the State Conservation District to provide a setback to reduce the risk of fire spreading from the “wildlands” to the developed area.	SUB	DPP HFD	Regulator Advocate
<b>Greenways and Open Space Corridors</b>			
Provide additional connectivity for bicyclists and pedestrians by developing the Pearl Harbor Historic Trail between ‘Aiea and Nānākuli.	State CIP City CIP	DOT DDC	Implementer Implementer
Provide sufficient easement width for the major trunk lines and transmission and distribution lines for utility systems to allow landscaping within and adjacent to the easement, consistent with all applicable operations, maintenance, and safety requirements. Place new transmission lines underground, where possible, under criteria specified in State law.	Cons Distr SUB BID/CFD	DLNR DPP PUC BFS HECO DA	Regulator Regulator Regulator Regulator Implementer Implementer
Permit the use of utility easements for pedestrian and bicycle routes, consistent with all applicable operations, maintenance, and safety requirements.	SUB	DPP HECO	Regulator Implementer
Design the rights-of-way for major and minor arterials as landscaped parkways or greenways, complete with a landscaped median strip, landscaped sidewalks, and bikeways.	SUB UDP	DPP	Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>REGIONAL PARKS AND RECREATION COMPLEXES</b>			
Consider using public-private partnerships to build, and maintain new regional parks and recreation complexes in order to sustain economic development.	City CIP	DPR DDC	Implementer Implementer
	BID/CFD	DES BFS DA	Implementer Regulator Implementer
Develop a major regional park within Kalaeloa that provides beach-oriented recreation, camping, and support facilities near the shoreline, other active recreation facilities in mauka areas, and preserves for cultural and archaeological resources and for wildlife habitats such as wetlands and endangered plant colonies.	KMP	HCDA	Regulator
	City CIP	DDC DPR	Implementer Implementer
Complete development of Kapolei Regional Park to provide diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei.	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
Use best practices in the architectural and landscaping design, incorporation of natural features and indigenous plants, siting of facilities, connectivity, and provision of transit for regional parks and recreation complexes.	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
	UDP SUB	DPP	Regulator
Develop additional beach and shoreline parks along the 'Ewa coastline.	City CIP	DDC DPR	Implementer Implementer
Maintain prominent landforms at Pu'u O Kapolei and Pu'u Pālailai as natural visual features and regional landmarks. Develop Pu'u Pālailai Park as a private nature park.	City CIP	DDC DPR	Implementer Implementer
	ZC	DPP	Regulator
	BID/CFD	BFS DA	Regulator Implementer
Retain, protect, and incorporate wetland, and other wildlife habitat and environmentally sensitive areas as passive recreational resources.	ESA/MBTA	USFWS/ NOAA USACE DLNR	Regulator Implementer
	INRMP	DOD	Regulator Implementer
	SMA	DPP	Regulator
<b>COMMUNITY-BASED PARKS</b>			
Provide adequate parks and supporting amenities to meet residents' recreational needs.	Park Dedic.	DPP	Regulator
	City CIP	DDC DPR	Implementer Implementer
Co-locate parks with elementary or intermediate schools. Coordinate design, development and use of recreational facilities with the DOE where efficient and effective.	State CIP	DOE	Implementer
	City CIP	DDC	Implementer
		DPR	Implementer
Where feasible, site parks near the center of neighborhoods, in order to maximize accessibility and connectivity. Provide pathways to parks from surrounding streets.	UDP SUB	DPP	Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
Use xeriscaping, nonpotable irrigation water, and efficient irrigation systems wherever possible.	City CIP	DDC	Implementer
		DPR	Implementer
Support continuation of controlled access to the Wai‘anae Range mountain trails via Pālehua Road.	State CIP State Trails	DLNR	Implementer
HISTORIC AND CULTURAL RESOURCES			
Emphasize physical references to ‘Ewa’s history and cultural roots to help define ‘Ewa’s unique sense of place. Protect existing visual landmarks, and support creation of new culturally appropriate landmarks. Preserve significant historic features from the plantation era and earlier periods as recommended by the State Historic Preservation Officer. Retain significant vistas whenever possible.	ZC/UA UDP	DPP	Regulator
	Hist Pres	SHPD	Regulator
	City CIP	DDC	Implementer
		DFM	Implementer
Assume that historic, cultural, and archaeological site mitigations approved as part of prior development approvals carry out the Plan vision and policies.	UA UDP	DPP	Regulator
	Hist Pres	SHPD	Regulator
Sites Under Review			
Vary the treatment of sites according to their characteristics and potential value. Use in situ preservation and appropriate protection measures for historic, cultural, or archaeological sites with high preservation value. Allow historic sites to be converted from their original intended use to serve a new function if historic value is maintained, especially if interpretive value is enhanced.	Hist Pres	SHPD	Regulator
	LUO	DPP	Implementer
	City CIP	DDC	Implementer
		DFM	Implementer
Protect the Honouliuli Internment Camp site and the ‘Ewa Marine Corps Air Field site in Kalaeloa from development while the value and appropriate treatment of the two sites are being determined.	Hist Pres	SHPD	Regulator
	KMP	HCDA	Regulator
		DPR	Implementer
Impacts of Development on Historic and Cultural Resources			
Plan and design adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site.	Hist Pres	SHPD	Regulator
	City CIP	DDC	Implementer
		DFM	Implementer
Design and site all structures, where feasible, to reflect the need to maintain and enhance available views of significant landmarks and vistas. Whenever possible, relocate or place underground overhead utility lines and poles that significantly obstruct public views, under criteria specified in State law.	UA UDP	DPP	Regulator
	BID/CFD	PUC	Regulator
		BFS	Regulator
		HECO	Implementer
		DA	Implementer



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>OR&amp;L Historic Railway</b>			
Maintain or repair the existing track to the extent feasible to permit historic and educational rides. Extend the route from 'Ewa Villages to Nānākuli. To allow connectivity within the region, accommodate cross-traffic at appropriate intervals along the right-of-way. Set back new development a minimum of 50 feet on either side of the R-O-W. Allow railroad accessory structures, parking, and loading areas in the R-O-W and setback areas.	Hist Pres	SHPD	Regulator
	U&OA DOT	HiRS Regulator	Implementer
	ZC	DPP	Advocate
	LUO SUB	DPP	Regulator
Develop a parallel paved bikeway along the length of the rail route as part of the Pearl Harbor Historic Trail, even in those sections where railroad rides are not operational. Design structures and elements to reflect the historic nature of the railway. Provide landscaping, interpretive signs, and occasional rest stops	State CIP	DOT	Implementer
	BPH	DOT	Implementer
	Hist Pres	SHPD	Regulator
<b>Lanikūhonua</b>			
Maintain the visual identity and unique setting of Lanikūhonua as closely as possible to its present condition through the use of native landscaping, maintenance of the architectural style of the original buildings, and limits on public access and use.	SMA LUO	DPP	Regulator
	Hist Pres	SHPD LCI	Regulator Implementer
<b>Native Hawaiian Cultural and Archaeological Sites</b>			
Determine the appropriate preservation method, site boundaries, setbacks, and restrictions for adjacent uses on a site-by-site basis, in consultation with the State Historic Preservation Officer.	Hist Pres	SHPD	Regulator
	ZC/UA UDP	DPP	Regulator
Determine the appropriate level of public access on a site-by-site basis, in consultation with the State Historic Preservation Officer, Hawaiian cultural organizations, and the land owner.	Hist Pres	SHPD	Regulator
		OHA	Advocate
	ZC/UA UDP	DPP	Regulator
<b>NATURAL RESOURCES</b>			
Conserve potable water by supporting water conservation measures (e.g. non-potable irrigation, xeriscaping).	WUP	CWRM BWS	Regulator Advocate
	SUB	DPP	Regulator
Protect valuable habitat for waterbirds, fish, invertebrates and other endangered animals and plants. Require surveys for proposed new developments to identify endangered species habitat, and require appropriate mitigations for adverse impacts.	ESA/MBTA	USFWS/ NOAA	Regulator
		USACE	Regulator
		DLNR	Regulator
	SMA ZC/UA UDP	DPP	Regulator



<b>Table 5.1: Implementation Matrix</b>			
<b>Policies and Guidelines Statements</b>	<b>Programs</b>	<b>Agencies</b>	<b>Roles</b>
Clean up contaminated areas that pose hazards to soil and water quality, especially in Kalaeloa.	EPA Act	EPA DOH HCDA DHHL	Regulator Regulator Regulator Implementer
Reduce light pollution’s adverse impact on wildlife and human health and its unnecessary consumption of energy by using, where possible, fully shielded lighting fixtures using lower wattage.	ESA/MBTA  BC UDP LUO	USFWS DLNR DOT DTS DPP	Regulator Regulator Implementer Implementer Regulator
<b>MASTER PLANNED COMMUNITIES</b>			
<b>City of Kapolei</b>			
Develop the City of Kapolei as the downtown for the Secondary Urban Center with a balanced mix of business and residential areas, complemented by the recreational, social and cultural activities of a city. Allow development of a business hotel in the Mixed Use District of the City. Create a grid system of public streets and keep block lengths relatively short. Allow buildings up to 150 feet high in the City Center. Use best practices to conserve potable water, make the City a garden city, and encourage walking, biking, and transit usage.	UDP UA SUB TOD	DPP	Regulator
<b>‘Ewa Plantation Villages</b>			
Preserve and enhance the rural form and historic character of the Villages. Use the ‘Ewa Villages Master Plan as a vehicle for preservation and redevelopment efforts within the existing villages. Rehabilitate or adapt existing village structures in the ‘Ewa Villages for reuse. Develop additional neighborhood parks/open space and a small shopping center. Make infrastructure improvements. Establish community facilities and a market place for local businesses.	EVMP/MOA  City CIP Hist Pres 201H CC&R	DPR DFM FmHA ACHP HHF DDC SHPD DPP AOHO	Implementer Implementer Implementer Advocate Advocate Implementer Regulator Regulator Implementer
Ensure continued tenancy and ownership opportunities for current residents. Develop or rehabilitate 1,900 affordable and market housing units.	Hist Pres EVMP/MOA CDBG/HOME 201H City CIP RPT	SHPD DFM DCS DPP DDC BFS	Regulator Implementer Implementer Regulator Implementer Implementer



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>Ocean Pointe/Hoakalei</b>			
Develop Hoakalei as the region's principal recreational marina for local residents and visitors. Develop the project by following best practices to ensure environmental compatibility. Provide expanded public recreation areas and access to shoreline and waterfront areas. Develop a mix of activities around the marina basin, including a Marina Mixed Use area with resort and commercial development, a Medium Density Residential area, and a Marine Industrial area. Develop the marina as a commuter ferry terminal if feasible and if financing for improvements can be found. Retain, enhance, and protect wetlands and other wildland habitat. Develop the golf course to provide open space and detention basins for run-off from light storms.	UDP UA SUB Drain MP	DPP	Regulator
	ORTP TIP	OMPO	Implementer
	City CIP	DDC DTS	Implementer Implementer
<b>Other Existing and Planned Residential Communities</b>			
Develop suburban residential areas with housing density of 10 to 15 units per acre. Develop residential areas along the rapid transit corridor at housing densities of 25 units per acre, and mixed use residential/commercial areas within 1/4 mile of transit stations at densities from 25 to 90 units per acre. Require that 30 percent of the housing units be affordable to low and low-moderate income households.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD	DPP	Regulator
Develop or redevelop residential communities to have an identified pedestrian-friendly town center or "Main Street" area, and design commercial development to help establish and support that center. Encourage walking and biking and bus transit usage by providing ample path and roadway connectivity both to the town center and throughout the community, and by providing sufficient right-of-way to provide bus shelters and pull-outs.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP SUB TOD	DPP	Regulator
Provide land for community facilities including churches, community centers, and elderly and child care centers.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD Park Dedic.	DPP  AOHO	Regulator  Implementer
	City CIP Park MP	DDC DPR	Implementer Implementer
Use xeriscaping, non-potable water for irrigation, and efficient irrigation systems wherever possible to conserve groundwater resources.	SUB	BWS DPP	Regulator Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>Ko ‘Olina</b>			
Develop Ko ‘Olina as an integral part of the Secondary Urban Center.	UA UDP SUB	DPP	Regulator
Provide substantial waterfront areas for public use and retain the shoreline as natural open space softened by landscaping and focused on the beach and swimming lagoons. Avoid adverse impacts on natural resources or processes in the coastal zone. Follow best practices with respect to urban form, natural environment, shoreline access, views and vistas, circulation system and transportation facilities, water conservation, and landscaped treatment.	UA UDP SMA SUB	DPP	Regulator
<b>Kalaeloa</b>			
Develop Kalaeloa in ways that integrate the circulation system and land use pattern of the ‘Ewa Plain. Provide additional ways for ‘Ewa residents and workers to cross ‘Ewa from east to west and north to south.	KMP	HCDA	Regulator
	State CIP	DOT	Implementer
	City CIP	DDC	Implementer
Develop a major new regional park. Provide continuous lateral shoreline access with links to adjacent pathways in Ocean Pointe/Hoakalei and Campbell Industrial Park.	KMP	HCDA	Regulator
	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
Provide ample lands devoted to uses that will create long-term jobs for ‘Ewa residents.	KMP	HCDA	Regulator
Follow best practices for shoreline setback and access; protection of archaeological, cultural, historical, and natural resources; separation of use areas; appropriate scale; accessibility and connectivity; landscaping; and water conservation.	KMP	HCDA	Regulator
	City CIP	DDC	Implementer
	Park MP	DPR	Implementer
<b>University of Hawai‘i West O‘ahu</b>			
Develop University of Hawai‘i West O‘ahu campus to be environmentally and culturally sensitive to the site, to be reflective of the Hawaiian culture and ‘Ewa, and, in combination with an adjacent University Village, to be an important civic and cultural institution for ‘Ewa. Follow best practices for place making, design, landscaping, circulation, open space, and views.	ZC/UA UDP LUO PRU TOD	DPP	Regulator
		UHWO	Implementer
Provide direct vehicle access to the campus from both Farrington Highway and Kualaka‘i Parkway. Orient the campus to support pedestrian access to and transit usage from two rapid transit stations planned for locations on Kualaka‘i Parkway.	PRU SUB	DPP	Regulator
		DOT	Regulator
		UHWO	Implementer
Design the campus to use open space areas for flood detention and retention as part of the Kalo‘i Gulch watershed master plan in order to reduce the downstream impact of major storm events and keep stormwater flows and velocity below design levels used for earlier developments in the Kalo‘i Gulch watershed.	Drain MP	DPP	Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
<b>PLANNED COMMERCIAL RETAIL CENTERS</b>			
Develop planned commercial centers, outside of the City of Kapolei, to provide retail shopping and offices delivering services for the ‘Ewa residential communities in which they are located. Concentrate commercial uses in central locations instead of in continuous commercial strips along arterial roads, and design the centers to support pedestrian-friendly centers or “Main Streets” for their communities. Allow medium density mixed use commercial development within a quarter-mile radius of proposed transit stations on the rapid transit corridor.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD	DPP	Regulator
Locate Major Community Commercial Centers or Regional Commercial Centers and major office buildings in the City of Kapolei. Allow offices providing support to the University of Hawai‘i West O‘ahu to be located in the TOD areas around the two transit stations closest to the campus.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA	DPP	Regulator
Permit multi-family residential use above the first floor and include it wherever possible in commercial centers.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA LUO	DPP	Advocate Regulator
Follow best practices for architectural character, building siting, building height and density, accessibility, connectivity, pedestrian and bicycle facilities, visual screening, water conservation, lighting, and signage.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP LUO SUB	DPP	Advocate Regulator
<b>INDUSTRIAL AREAS</b>			
Maintain the Barbers Point Industrial Area as one of O‘ahu’s and the State’s most important industrial areas. Develop the northern parts of Kapolei Business Park, Kapolei Harborside, and any Kalaeloa lands designated for industrial use for light industrial uses or compatible commercial uses as a transition between heavy industry at Campbell Industrial Park and the City of Kapolei. Allow development of marine industrial uses at Hoakalei.	KMP	HCDA	Regulator
	LUO UDP	DPP	Regulator
If a major film studio is developed within the Barbers Point Industrial Area, allow accessory uses, such as film production offices, film crew overnight accommodations, a “back lot” area with commercial uses, and visitor attractions.	LUO	DPP	Regulator
Develop Honouliuli as a smaller industrial area, used for wastewater treatment and for light industrial and industrial-commercial mixed uses to serve the surrounding communities. Expand the Honouliuli Wastewater Treatment Plant to accommodate additional growth in the region as well as to provide additional facilities for higher levels of wastewater treatment.	UA LUO	DPP	Regulator
	City CIP	DDC	Implementer
		ENV	Implementer



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
Allow the <b>Hawaiian Electric Company generating plant</b> in Kahe Valley to be expanded to take advantage of available land area, cooling system capacity, and power transmission lines.	PUC	PUC	Implementer
		HECO	Implementer
	LUO	DPP	Regulator
Follow best practices for appropriate scale, environmental compatibility, building height and mass, shoreline setback and access, roadway setbacks, water conservation, and landscape treatment.	KMP	HCDA	Regulator
	ZC/UA	DPP	Regulator
	UDP LUO SUB		
<b>TRANSPORTATION SYSTEMS</b>			
Provide adequate access between residences and jobs, shopping, and recreation centers in ‘Ewa as development occurs. To improve connectivity, provide a multi-modal network of interconnected routes that safely accommodate walkways, bikeways, and streets throughout ‘Ewa and that efficiently link arterials, residences, schools, parks, community facilities, commercial and employment centers, and transit stops.	ORTP TIP	OMPO	Implementer
	State CIP	DOT	Implementer
	City CIP	DDC DTS	Implementer Implementer
	KMP	HCDA	Regulator
	ZC/UA UDP ECS SUB	DPP	Regulator
Provide improved access and capacity to and from adjacent areas, especially Central O‘ahu.	ORTP TIP	OMPO	Implementer
	State CIP	DOT	Implementer
	City CIP	DDC DTS	Implementer Implementer
Provide adequate capacity for major peak hour commuting to work in the Primary Urban Center. Meet demand for peak-period transportation capacity by increased use of transit, and by transportation demand management (improved HOV lane service, provision of park-and-ride facilities, and reduction of single occupant automobile traffic). Establish a commuter ferry from Hoakalei Marina if feasible and if financing for improvements can be found.	ORTP TIP	OMPO	Implementer
	State CIP	DOT	Implementer
	City CIP	DDC	Implementer
		DTS	Implementer
Reserve land for the right-of-way for the Council-identified rapid transit corridor in ‘Ewa and plan to develop medium density high-traffic land uses and transit-oriented development nodes along the route.	KMP	HCDA	Regulator
	KRMP	DHHL	Regulator / Implementer
	ZC/UA UDP TOD	DPP DTS	Regulator Advocate



<b>Table 5.1: Implementation Matrix</b>			
<b>Policies and Guidelines Statements</b>	<b>Programs</b>	<b>Agencies</b>	<b>Roles</b>
<b>WATER ALLOCATION AND SYSTEM DEVELOPMENT</b>			
Require new developments to provide adequate potable and nonpotable water, and implement water conservation measures. Require developments with large landscaped areas, roadway landscaping, or industrial processes to have dual water lines (potable and nonpotable) to conserve use of potable water through use of nonpotable water for irrigation and other appropriate uses.	ZC/UA SUB	DPP	Implementer
		BWS	Regulator
Develop an adequate supply of nonpotable water for irrigation and other suitable uses on the 'Ewa Plain. Require nonpotable water used for irrigation above Pearl Harbor aquifer to be low in chlorides and total dissolved solids. Request that the State Commission on Water Resource Management consider all sources of water in making allocations of nonpotable water.	Water	CWRM	Regulator
	OWMP	BWS	Implementer
	City CIP	DDC	Implementer
Develop alternative water supplies using new technologies in water reclamation, membrane and distillation desalination and deep ocean water applications. Encourage use of technologies conserving water and using renewable energy that could support alternative water supplies.	Water	CWRM	Regulator
	OWMP	BWS	Implementer
		ENV	Implementer
	City CIP	DDC	Implementer
<b>WASTEWATER TREATMENT</b>			
Require all wastewater produced by new developments in 'Ewa to be connected to a regional or municipal sewer service system.	SUB	DPP	Regulator
		ENV	Implementer
Where feasible, use recycled water recovered from wastewater effluent for irrigation and other uses below the Underground Injection Control (UIC) line and the "No-Pass" Line.	WP	DOH	Regulator
	OWMP	BWS	Implementer
	ZC/UA SUB	DPP	Regulator
Locate wastewater treatment plants in areas shown as planned for industrial use and away from residential areas	WP	DOH	Regulator
	City CIP	DDC	Implementer
	WMBFP	ENV	Implementer
	LUO	DPP	Regulator
<b>ELECTRICAL POWER DEVELOPMENT</b>			
Analyze and approve system improvements based on island-wide studies and siting evaluations. Give strong consideration to placing any new transmission lines underground.	PUC	PUC HECO	Regulator Implementer
	LUO	DPP	Regulator
	BID/CFD	BFS DA	Regulator Implementer
Locate electrical power plants in areas shown as planned for Industrial use and away from residential areas.	PUC	PUC HECO	Regulator Implementer
	LUO	DPP	Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
SOLID WASTE HANDLING AND DISPOSAL			
Analyze and approve siting expansion of sanitary landfills based on island wide studies or both siting evaluations. Do not develop Makaīwa Gulch as a landfill.	SUP	LUC	Regulator
		DPP	Advocate
	SWIMP	ENV	Implementer
For master-planned communities, in consultation with the Department of Environmental Services, estimate the amount of solid waste to be generated and plan how solid waste will be collected and recycling will be encouraged.	ZC/UA SUB	DPP	Regulator
		ENV	Implementer
DRAINAGE SYSTEMS			
Design drainage systems to emphasize flood control, minimize nonpoint source pollution, and retain and/or detain stormwater. Use stormwater for aquifer recharge. Use natural and man-made vegetated drainageways and retention basins as the preferred solution to drainage problems. Permit concrete-lined channels if there is no other feasible alternative. Insure that solutions to handling drainage problems on lands above ‘Ewa Villages are compatible with the drainage design of the <b>‘Ewa Villages Master Plan</b> and other developments in the Kalo‘i Gulch drainage basin.	NPDES	DOH	Regulator
	Drain MP	DPP	Regulator
Integrate planned drainage system improvements into the regional open space network by allowing recreational use of retention basins, and creating passive recreational areas and pathways for pedestrians and bikers.	Drain MP	DPP	Regulator
SCHOOL FACILITIES			
Request DOE to report to DPP if adequate school capacity can be provided as part of the project review and approval process, both at the entitlement and permit approval stages.	ZC/UA SUB	DPP	Implementer
Require developers to comply with DOE school impact fees requirements and existing UA school impact conditions and pay their fair share of all costs needed to provide adequate school facilities for the children living in their developments.	SIF	DOE	Regulator
	ZC/UA	DPP	Implementer
Design school facilities to facilitate community use during nonschool hours and weekends.	State CIP	DOE	Implementer
		DPP	Advocate
Co-locate neighborhood or community parks with elementary and intermediate schools and coordinate design of facilities with the State DOE when needless duplication of parking and of athletic, recreation, and meeting facilities can be avoided.	State CIP	DOE	Implementer
	City CIP	DDC	Implementer
		DPR	Implementer
PUBLIC SAFETY FACILITIES			
Provide adequate facilities and staffing to ensure public safety and provide fire protection, police protection, and emergency medical service for existing and new development.	City CIP	DDC	Implementer
	Op Bud	BFS	Implementer
		HFD	Implementer
		HPD	Implementer
		EMS	Implementer
	City CIP	DDC	Implementer
		DEM	Implementer
	BC	DPP	Regulator



Table 5.1: Implementation Matrix			
Policies and Guidelines Statements	Programs	Agencies	Roles
Provide incentives for private organizations to create hurricane resistant shelter areas in their facilities and for homes to include hurricane resistant “safe rooms.”	CDBG/HOME	DCS	Implementer
		DEM	Implementer
	Op Bud	BFS	Regulator
<b>OTHER COMMUNITY FACILITIES</b>			
Encourage co-location of antennae. Mount antennae on existing buildings or structures so that public scenic vistas and open spaces will not be negatively affected. Use “stealth” technology to minimize visual impacts.	LUO	DPP	Regulator

Key to Abbreviations		
Programs	Agencies	Roles
<ul style="list-style-type: none"> <li>• <b>Agric Distr:</b> State Agriculture District, Chapter 205, Hawai‘i Revised Statutes (HRS)</li> <li>• <b>BC:</b> Building Code, Chapter 16, ROH</li> <li>• <b>BID:</b> Business Improvement District, Chapter 28, Revised Ordinances of Honolulu (ROH)</li> <li>• <b>BPH:</b> Bike Plan Hawai‘i</li> <li>• <b>CDBG:</b> Community Development Block Grant, HUD</li> <li>• <b>CFD:</b> Community Facilities Districts, Chapter 27, ROH</li> <li>• <b>CIP:</b> Capital Improvement Program</li> <li>• <b>Cons Distr:</b> State Conservation District, Ch. 205, HRS</li> <li>• <b>CZM:</b> Coastal Zone Management, Chapter 205A, HRS</li> <li>• <b>Drain MP:</b> Drainage Master Plan</li> <li>• <b>ECS:</b> ‘Ewa Connectivity Study</li> <li>• <b>EPA Act:</b> Environmental Protection Agency Act</li> <li>• <b>ESA:</b> Endangered Species Act</li> <li>• <b>EVMP/MOA:</b> ‘Ewa Villages Master Plan/Memorandum of Agreement</li> <li>• <b>HOME:</b> Home Investment Partnerships Program, HUD</li> <li>• <b>Hist Pres:</b> Historic Preservation, Chapter 6E, HRS</li> <li>• <b>HSCD:</b> Hawai‘i State Civil Defense</li> <li>• <b>INRMP:</b> Integrated Natural Resource Master Plan</li> <li>• <b>Kapolei MP:</b> Kapolei Area Long Range Master Plan, The Estate of James Campbell</li> <li>• <b>KMP:</b> Kalaeloa Master Plan</li> <li>• <b>KRMP:</b> Kapolei Regional Master Plan, DHHL</li> <li>• <b>LUO:</b> Land Use Ordinance, Chapter 21, ROH</li> <li>• <b>MBTA:</b> Migratory Bird Treaty Act</li> <li>• <b>NPDES:</b> National Pollutant Discharge Elimination System</li> <li>• <b>OMTP:</b> O‘ahu Metropolitan Transportation Plan</li> <li>• <b>Op Bud:</b> City Operating Budget</li> <li>• <b>Park Ded:</b> Park Dedication, Chapter 22, ROH</li> <li>• <b>Park MP:</b> Park Master Plan</li> <li>• <b>PRU:</b> Plan Review Use</li> <li>• <b>PUC:</b> Public Utilities Commission, Ch. 269, HRS</li> <li>• <b>RPT:</b> City Real Property Transactions, Chapter 37, ROH</li> </ul>	<ul style="list-style-type: none"> <li>• <b>AOHO:</b> Association of Home Owners</li> <li>• <b>BFS:</b> Department of Budget and Fiscal Services</li> <li>• <b>BWS:</b> Board of Water Supply</li> <li>• <b>CWRM:</b> State Commission on Water Resource Management</li> <li>• <b>DA:</b> Business Improvement District Association</li> <li>• <b>DCS:</b> Department of Community Services</li> <li>• <b>DDC:</b> Department of Design and Construction</li> <li>• <b>DEM:</b> Department of Emergency Management</li> <li>• <b>DES:</b> Department of Enterprise Services</li> <li>• <b>DFM:</b> Department of Facility Maintenance</li> <li>• <b>DLNR:</b> State Department of Land and Natural Resources</li> <li>• <b>DOD:</b> United States Department of Defense</li> <li>• <b>DOE:</b> State Department of Education</li> <li>• <b>DOH:</b> State Department of Health</li> <li>• <b>DOT:</b> State Department of Transportation</li> <li>• <b>DPP:</b> Department of Planning and Permitting</li> <li>• <b>DPR:</b> Department of Parks and Recreation</li> <li>• <b>DTS:</b> Department of Transportation Services</li> <li>• <b>ENV:</b> Department of Environmental Services</li> <li>• <b>EPA:</b> Environmental Protection Agency</li> <li>• <b>HCDA:</b> Hawai‘i Community Development Authority</li> <li>• <b>HECO:</b> Hawaiian Electric Company</li> <li>• <b>HiRS:</b> Hawaiian Railway Society</li> <li>• <b>HFD:</b> Honolulu Fire Department</li> <li>• <b>HSCD:</b> Hawai‘i State Civil Defense</li> </ul>	<ul style="list-style-type: none"> <li>• Implementer</li> <li>• Advocate</li> <li>• Regulator</li> </ul>



Key to Abbreviations		
Programs	Agencies	Roles
<ul style="list-style-type: none"> <li>• <b>SIF</b>: School Impact Fees, Chapter 302A-1601 to 1611, HRS</li> <li>• <b>Shore Stbk</b>: Shoreline Setback, Chapter 23, ROH</li> <li>• <b>SLUBDA</b>: State Land Use District Boundary Amendment</li> <li>• <b>SMA</b>: Special Management Area, Chapter 25, ROH</li> <li>• <b>State Parks</b>: DLNR State Parks; Division of Forestry and Wildlife Camping permits</li> <li>• <b>State Trails</b>: DLNR Nā Ala Hele State Trails and Access Program</li> <li>• <b>SUB</b>: Subdivision</li> <li>• <b>SUP</b>: Special Use Permit</li> <li>• <b>SWIMP</b>: Solid Waste Integrated Management Plan</li> <li>• <b>TIP</b>: Transportation Improvement Plan</li> <li>• <b>TOD</b>: Transit-Oriented Development</li> <li>• <b>UA</b>: Unilateral Agreement, LUO Sec. 21-2.80</li> <li>• <b>U&amp;OA</b>: Use and Occupancy Agreement</li> <li>• <b>UDP</b>: Urban Design Plan</li> <li>• <b>Water</b>: State Water Code, Chapter 174C, HRS</li> <li>• <b>WMBFP</b>: West Māmalā Bay Facilities Plan</li> <li>• <b>WP</b>: Water Pollution, Chapter 342D, HRS</li> <li>• <b>WUP</b>: Water Use Permit/Well Permit, CWRM</li> <li>• <b>ZC</b>: Zone Change</li> </ul>	<ul style="list-style-type: none"> <li>• <b>HUD</b>: U.S. Department of Housing and Urban Development</li> <li>• <b>LCI</b>: Lanikuhonua Cultural Institute</li> <li>• <b>LUC</b>: State Land Use Commission</li> <li>• <b>NOAA</b>: National Oceanic and Atmospheric Administration</li> <li>• <b>OHA</b>: Office of Hawaiian Affairs</li> <li>• <b>OMPO</b>: O‘ahu Metropolitan Planning Organization</li> <li>• <b>OP</b>: State Office of Planning</li> <li>• <b>PUC</b>: State Public Utilities Commission</li> <li>• <b>SHPD</b>: State Historic Preservation Division of the Department of Land and Natural Resources</li> <li>• <b>UHWO</b>: University of Hawai‘i West O‘ahu</li> <li>• <b>USACE</b>: United States Army Corps of Engineers</li> <li>• <b>USFWS</b>: United States Fish and Wildlife Service</li> </ul>	



## **Honolulu - Land Use**



## APPENDIX A: CONCEPTUAL MAPS

This appendix includes the four primary conceptual maps used to illustrate the vision for ‘Ewa’s future development. The maps include:

	<b>PAGE</b>
<b>OPEN SPACE</b>	<b>24-295</b>
<b>URBAN LAND USE</b>	<b>24-296</b>
<b>PUBLIC FACILITIES</b>	<b>24-297</b>
<b>PHASING</b>	<b>24-298</b>

These maps illustrate the long-range vision of the future of the plan area and the major land use, open space, and public facility policies that are articulated in the plan. In using these maps, the reader should keep in mind that:

1. These maps are general and conceptual, and are not intended to be used to determine specific land use boundaries. Such boundaries are to be determined during the review of specific land use or public facilities investment decisions, and their exact locations are to be guided by the vision and policies of this Plan.
2. These maps illustrate the Plan’s vision and policies which are presented in Chapters Two, Three, and Four. These policy statements are considered the most important elements of the Plan.

The maps are considered illustrations of the policies. However, the text should be consulted to determine the appropriate application of the Plan vision, policies, and guidelines for any specific project or location. In case of disagreement, the text should prevail over the map depiction.

A brief explanation of the terms used in each of these maps follows.

## GLOSSARY OF TERMS

Descriptions of elements common to each of the four maps are presented in the following section. Descriptions of elements specific to each map (Open Space, Land Use, Public Facilities, Phasing) are presented in separate sections for each map which follow the section on Common Elements.

## COMMON ELEMENTS

### Preservation Areas

Preservation areas are lands with natural, cultural, or scenic resource value.

They include the following types of land:

- Land necessary for protecting watersheds, water resources and water supplies.
- Lands necessary for the conservation, preservation and enhancement of sites with scenic, historic, archaeological or ecological significance.
- Lands necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish and wildlife, for forestry, and other related activities to these uses.
- Lands with topography, soils, climate or other related environmental factors that may not be normally adaptable or presently needed for urban, rural or agricultural use.
- Lands with general slopes of 20 percent or more which provide for open space amenities and/or scenic values.



- Lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the State or Federal Government, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the lands' susceptibility to landslides or inundation or both tsunami and flooding.
- Lands used for national, State or city parks.
- Lands suitable for growing of commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when said facilities are compatible with the natural physical environment.

### **Agricultural Areas**

Agricultural areas are lands with agricultural value by virtue of current agricultural use or high value for future agricultural use, including those areas identified as Prime, Unique, or Other Important lands on the Agricultural Lands Important to the State of Hawai'i (ALISH) maps. These are lands suitable for crop growing, grazing and livestock raising, flower cultivation, nurseries, orchards, aquaculture, or similar activities.

Under the State Constitution, the State is to identify Important Agricultural Lands (IAL). Once identified, these lands cannot be rezoned except under a "super majority" vote. To date, IAL lands have not been identified. In 2005, Act 183 was adopted to address this mandate. It established a two-step process:

- The State Legislature would adopt incentives to assure the long term use and protection of IAL.
- The State Legislature would approve adequate funding to allow the counties to prepare maps identifying IAL lands which would then be adopted by the State Land Use Commission.

Act 233, enacted in 2008, adopted the incentive programs. To date, no State funding has been appropriated to the counties for the mapping. Lands identified for agricultural purposes by this plan can serve as the basis for the county mapping process.

### **Parks**

The maps show locations of existing public and private parks and recreational facilities, including regional parks, district parks, shoreline parks, and nature parks and conceptual locations for planned and proposed parks. Smaller community-based parks, including community parks, neighborhood parks, and mini-parks, are not shown.

### **Golf Courses**

The maps show the locations of existing and proposed public and private golf courses.

### **Historic Railway/Bikeway Corridor**

The corridor shown on the 'Ewa maps is part of the Pearl Harbor Historic Trail, a continuous greenway stretching from Nānākuli across the 'Ewa Plain to West Loch and then along the shores of Pearl Harbor to Rainbow Marina near Aloha Stadium with a connection to the Waipahū Cultural Garden Park. The corridor will include a major pedestrian and bike path and a restored OR&L right-of-way that would allow train operations between 'Ewa Plantation Villages and Nānākuli.

### **Community Growth Boundary**

The Community Growth Boundary defines and contains the intended extent of developed or "built up" areas of urban and urban fringe communities. Its purpose is to provide adequate land to support established or developing communities while protecting lands outside this boundary for agriculture or open space values. Areas within this boundary are generally characterized by extensive tracts of residential, commercial, industrial, or mixed-use development clearly distinguishable from undeveloped or more "natural" portions of a region's environment.

In the **'Ewa Development Plan**, the *mauka* portion of the Community Growth Boundary follows the Special Management Area boundary around Kahe Point, runs along the *mauka* boundary of the Makaīwa Hills project and



Makakilo, follows the proposed extension of Makakilo Drive to the H-1 freeway, and then follows the H-1 freeway to the Kunia Road where it turns and follows Kunia Road to the boundary between the ‘Ewa Development Plan area and the Central O‘ahu Sustainable Communities Plan area. It excludes all State Agricultural and Conservation District lands *mauka* of the boundary from urban development.

The *makai* portion of the Community Growth Boundary excludes the area within the Explosive Safety Quantity Distance (ESQD) arc for the West Loch Naval Magazine from urban development.

**Highways, Arterials, and Major Collector Streets**

Major existing and proposed roadways providing east-west and *mauka-makai* linkages across the ‘Ewa Development Plan area.

**OPEN SPACE MAP**

The Open Space Map illustrates the vision for the ‘Ewa Open Space Network. The Open Space Network consists of large areas of preservation and agricultural lands outside the Community Growth Boundary and a network of parks, wildlife habitats, golf courses, agricultural lands, ravines, grass-lined drainageways, and greenways along utility corridors and major arterials within the Community Growth Boundary. (See definitions of terms and discussion in Sections 2.2.1, 2.2.2, 2.2.3 in Chapter 2 and in Section 3.1 in Chapter 3.)

The Open Space Map shows major open space elements and resources, including agricultural and preservation lands, major recreational facilities, important “panoramic” views, natural stream corridors and drainageways, and important boundaries.

Terms on the Open Space Map which are not common to all of the maps include:

**Natural Drainageways/Gulches**

Natural waterways which are to be retained as flood plains and open space resources and protected from development, disturbance, or channelization except where absolutely necessary to protect existing urban development from flooding.

**Panoramic Views**

Significant views and vistas which are to be retained, whenever possible. (See Table 3.2, Exhibit 3.2, and Section 3.4.2.)

**Shoreline Access**

The proposed lateral public easement/access along the ‘Ewa shoreline with public pedestrian access to the shoreline at intervals of approximately 1/4 mile.

**Urban Areas**

Areas which have been developed or are planned for development for residential, retail, office, and industrial uses.

**Landscaped Boulevard/Greenway**

Major arterials and major collector streets which should be developed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. (See Sections 3.1.3.8 and 3.8.3.)



**URBAN LAND USE MAP**

The Urban Land Use Map illustrates the desired long-range land use pattern for ‘Ewa resulting from implementation of the plan’s vision and policies. It portrays the vision for development of the City of Kapolei, for the development of master planned residential communities, and for creation of new jobs at the Ko ‘Olina Resort, Campbell Industrial Park, Kapolei Business Park, West Kalaeloa Industrial Park, Kalaeloa, the University of Hawai‘i West O‘ahu, and the resort area at Ocean Pointe/Hoakalei. (See definition of terms and discussion in Sections 2.2.4, 2.2.5, 2.2.6, 2.2.7, and 2.2.10 in Chapter 2, and in Chapter 3.)

Terms on the Urban Land Use Map which are not common to all the maps include:

**Residential and Low-Density Apartment.**

Suburban communities characterized by:

- Single-family detached homes;
- Attached homes or townhouse units with individual entries; and
- Low density, low rise, multi-family residences, including townhouses, stacked flats, or apartment buildings.

In addition to residential uses, these areas may include neighborhood commercial centers, elementary schools, parks, churches, community centers, elderly care centers, child care centers, fire stations and other public facility and utility uses serving the community.

**Medium-Density Apartment**

Mixed use communities adjacent to transit nodes or resort areas which are characterized by medium density, low-to mid-rise multi-family residences with retail or service commercial uses on the ground or lower floors, where appropriate.

**Community Commercial Center**

This type of center principally serves the community in which it is located, providing for basic shopping and service needs on a larger scale than the neighborhood center. Community Commercial Centers may contain up to 250,000 square feet of floor area. Major attractions typically include a large grocery store, a drug store, and/or a department store.

**City of Kapolei**

The urban core or “downtown” for ‘Ewa which is intended to be ‘Ewa’s center for shopping, civic activity, and municipal services. It offers a wide range of shopping and dining opportunities and professional, business and industrial services, and provides housing in high and medium density residential mixed-use buildings.

**Resort/Recreation Area**

Areas at Ko ‘Olina and Ocean Pointe/Hoakalei to be developed for hotels, apartments, and accessory commercial and recreational facilities for resort use.

**Industrial**

Areas shown include the State’s prime location for heavy industry at Campbell Industrial Park and Kalaeloa Barbers Point Harbor as well as areas designated for light- and service-related industrial uses associated with repair, processing, construction, manufacturing, transportation, wholesaling, distribution, storage and similar economic activities. Industrial areas also can include a range of compatible commercial activities. See Sec. 3.11 for more details on the appropriate uses for specific industrial locations in ‘Ewa.



**Military**

Lands for military and military support purposes.

**Public Institution**

Major facilities for public use or benefit.

**Transit Node (Medium Density Apartment and Commercial)**

Centers of medium density apartment and commercial development located around transit stations on a planned rapid transit corridor which extends from the City of Kapolei through Waipahū to downtown Honolulu. (See Sections 3.9, 3.10, and 4.1.4.2.)

**Civic Center**

The regional center with City and State offices and facilities providing services to all O‘ahu residents.

**Electric Power Plant**

Existing power plants at Kahe Point and Campbell Industrial Park.

**Wastewater Treatment Plant**

The existing wastewater treatment plant at Honouliuli.

**Intermediate/Middle School**

Existing intermediate/middle schools, ‘Ilima Intermediate in ‘Ewa Beach, and Kapolei Middle School in the Villages of Kapolei and conceptual locations for new intermediate/middle schools at ‘Ewa by Gentry (Makai), East Kapolei (DHHL and Ho‘opili), and Makaīwa Hills.

**High School**

Existing high schools, James Campbell High in ‘Ewa Beach, and Kapolei High School in the Villages of Kapolei, and conceptual locations for new high schools near the intersection of Kualaka‘i Parkway (formerly North-South Road) and Farrington Highway and near the corner of H-1 and Kunia Road.

**UH West O‘ahu**

Proposed campus location on 136 acres near the intersection of Kualaka‘i Parkway and Farrington Highway.

**Hospital**

The existing Hawai‘i Medical Center West on Fort Weaver Road.

**Small Boat Marina**

The existing Ko ‘Olina Marina and the proposed Hoakalei Marina.

**Commercial Harbor**

The existing Kalaeloa Barbers Point Deep Draft Harbor.

**Airfield**

The existing airfield at Kalaeloa.

**Quarry**

The existing quarry in Makakilo on the slopes of Pu‘u Makakilo.



**PUBLIC FACILITIES MAP**

The Public Facilities Map illustrates the major infrastructure needed to implement the vision for 'Ewa. It shows the location of existing facilities and conceptual locations for some of the future required infrastructure facilities.

It is not meant to be amended between revisions of the Plan, and should not be confused with the Public Infrastructure Map used in the Capital Improvement Program budget process.

Major public facilities which are to be funded through Capital Improvement Program budget appropriates must be shown on the Public Infrastructure Map (PIM). The PIM is not part of the **'Ewa Development Plan**, and is adopted and amended by resolution.

Projects which are not listed in the **'Ewa Development Plan** or not shown on the **'Ewa Development Plan** maps can still be added to the Public Infrastructure Map by Council resolution if the Council finds them to be consistent with the vision and policies of the **'Ewa Development Plan**. (For definitions, information about existing and planned public facilities, and functional planning processes, see Chapter 4 and Sec. 5.3 in Chapter 5.)

Terms on the Public Facilities Map which are not common to all maps include:

**Urban Areas**

Areas which have been developed or are planned for development for residential, retail, office, and industrial uses.

**Grade Separated Interchange**

Existing interchanges at Kunia Road and H-1 Freeway, Kualaka'i Parkway and H-1 Freeway, Makakilo Drive and H-1 Freeway, Kalaeloa Boulevard and H-1 Freeway, and Ali'inui Drive and H-1 Freeway, and proposed interchanges at Kapolei (Wākea Street and H-1 Freeway), and Maka'iwa Hills.

**Transit Corridor**

An area designated for establishment of communities that encourage use of transit, walking, and biking to go to work, to school, to shop, or to have fun by providing easy access to high speed mass transit; designing streets, public places, and pathways to be friendly to pedestrians and bikers; and locating medium density housing and commercial development within easy walking distance of the nearest rapid transit station. Sufficient land will be reserved in the corridor so that a rapid transit system can be developed in the future. (See Sections 2.2.7, 3.9.1, 3.10.1, and 4.1.4.2.).

**Transit Node**

Centers of medium density apartment and commercial development located around transit stations on a planned rapid transit corridor which extends from the City of Kapolei through Waipahū to downtown Honolulu. (See Sections 3.9, 3.10, and 4.1.4.2.)

**Park and Ride Site**

Special parking lots where commuters park their cars and continue their commute by mass transit.

**HOV (High Occupancy Vehicle) Lane**

An exclusive lane on a roadway reserved for transit and vehicles with more than one occupant which is developed to improve transit speed and to provide incentives for commuters to opt for mass transit or carpooling.



**Bike Lane**

A biking facility (bikeway) which is a four- to six-foot lane exclusively for bike use which is included in a roadway.

**Bike Path**

A biking facility (bikeway) which is separate from the roadway network.

**Civic Center**

The regional center with City and State offices and facilities providing services to all O‘ahu residents.

**Electric Power Plant**

Existing power plants at Kahe Point and Campbell Industrial Park.

**Wastewater Treatment Plant**

The existing wastewater treatment plant at Honouliuli.

**Intermediate/Middle School**

Existing intermediate/middle schools, Ilima Intermediate in ‘Ewa Beach, and Kapolei Middle School in the Villages of Kapolei and conceptual locations for new intermediate/middle schools at ‘Ewa Makai, East Kapolei (DHHL, and Ho‘opili), and Makāiwa Hills.

**High School**

Existing high schools, James Campbell High in ‘Ewa Beach, and Kapolei High School in the Villages of Kapolei, and conceptual locations for new high schools near the intersection of Kualaka‘i Parkway and Farrington Highway and near the corner of H-1 and Kunia Road.

**UH West O‘ahu**

Proposed campus location on 136 acres near the intersection of Kualaka‘i Parkway and Farrington Highway

**Hospital**

The existing Hawai‘i Medical Center West on Fort Weaver Road.

**Small Boat Marina**

The existing Ko ‘Olina Marina and the proposed Hoakalei Marina.

**Commercial Harbor**

The existing Kalaeloa Barbers Point Deep Draft Harbor.

**Airfield**

The existing airfield at Kalaeloa.

**Corporation Yard**

The existing Kapolei Corporation Yard in Campbell Industrial Park.

**Landfill**

The current Waimānalo Gulch Landfill site.



**Desalination Plant**

The Board of Water Supply's existing deactivated pilot desalination plant located in the Kapolei Business Park and the proposed desalination plant site located in Kalaeloa adjacent to the Campbell Industrial Park.

**PHASING MAP**

The Phasing Map shows where urban development has already occurred in 'Ewa, where new development will take place within the Community Growth Boundary, and the only area in 'Ewa that has a Special Area Plan (Kalaeloa).

Terms on the Phasing Map which are not common to all of the maps include:

**Existing Urban Areas**

Areas which already have been developed for residential, retail, office, institutional, or industrial uses. Growth in such areas can occur through re-development or in-fill.

**Urban Expansion Areas**

Undeveloped areas formerly in agricultural uses which are either already approved or will be considered for approval for development for residential, retail, office, institutional, or industrial uses. Applications for zone changes and other development approvals needed for new urban development in the Urban Expansion Area will be accepted for processing, and will be supported for approval if the project supports the vision and implementing policies of the **'Ewa Development Plan** and if adequate infrastructure can be provided. (See Sections 2.2.10, 5.1.2, and 5.3.) Total acreage as of July 2009 was estimated at over 6,500 acres with capacity for development of over 48,000 housing units (See Table 2.1.)

**Kalaeloa Special Area**

Special areas are areas which require more detailed planning than can be provided in a Development Plan (See Section 5.2). Kalaeloa is the only area in 'Ewa currently designated for a Special Area Plan.

**Transit Corridor**

An area designated for establishment of communities that encourage use of transit, walking, and biking to go to work, to school, to shop, or to have fun by providing easy access to high speed mass transit; designing streets, public places, and pathways to be friendly to pedestrians and bikers; and locating medium density housing and commercial development within easy walking distance of the nearest rapid transit station. Sufficient land will be reserved in the corridor so that a rapid transit system can be developed in the future. (See Sections 2.2.7, 3.9.1, 3.10.1, and 4.1.4.2.)

**Transit Node**

Centers of medium density apartment and commercial development located around transit stations on a planned rapid transit corridor which extends from the City of Kapolei through Waipahū to downtown Honolulu. (See Sections 3.9, 3.10, and 4.1.4.2.)

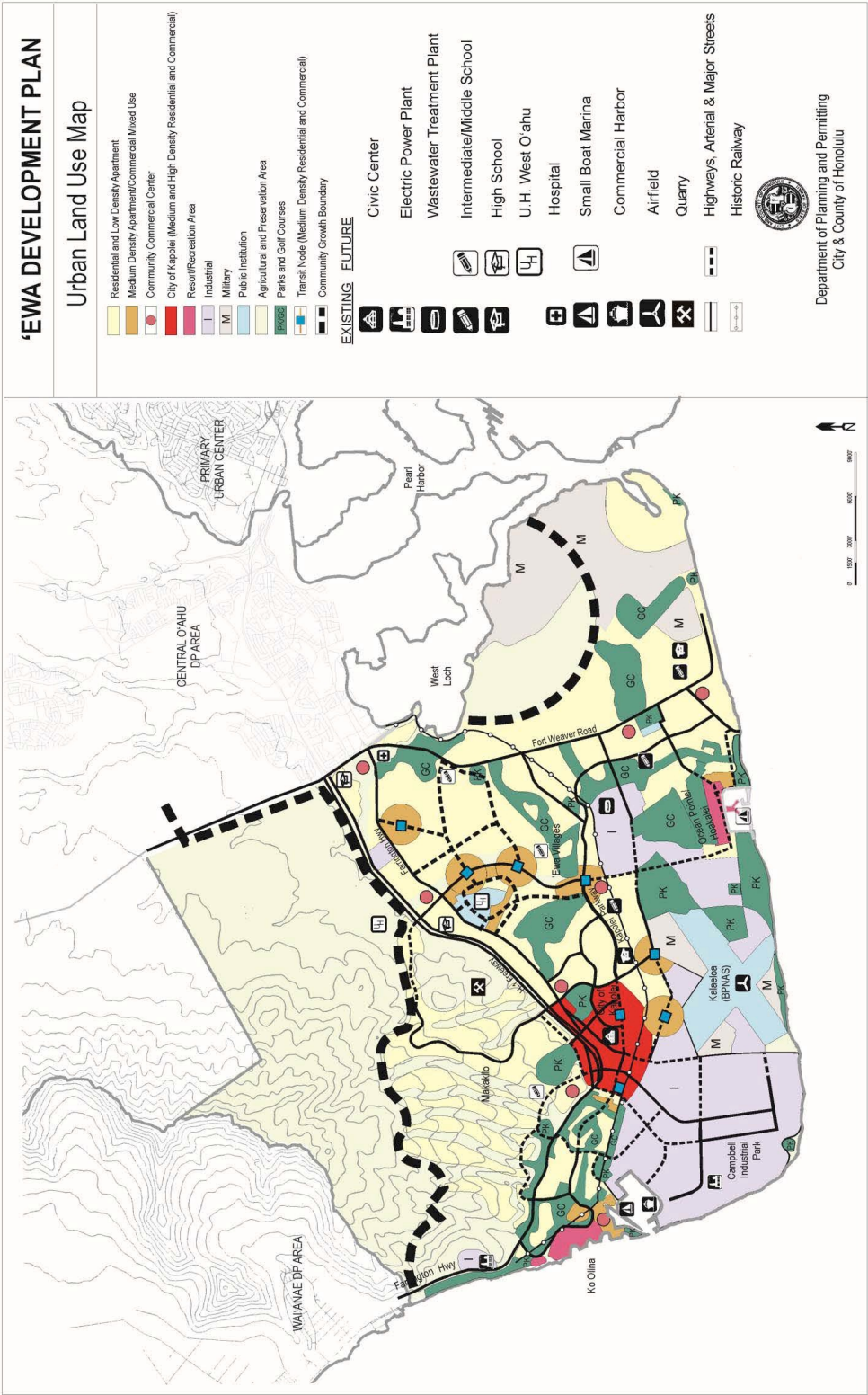
**Landscaped Boulevard/Greenway**

Major arterials and major collector streets which should be developed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. (See Sections 3.1.4.8 and 3.8.2.)

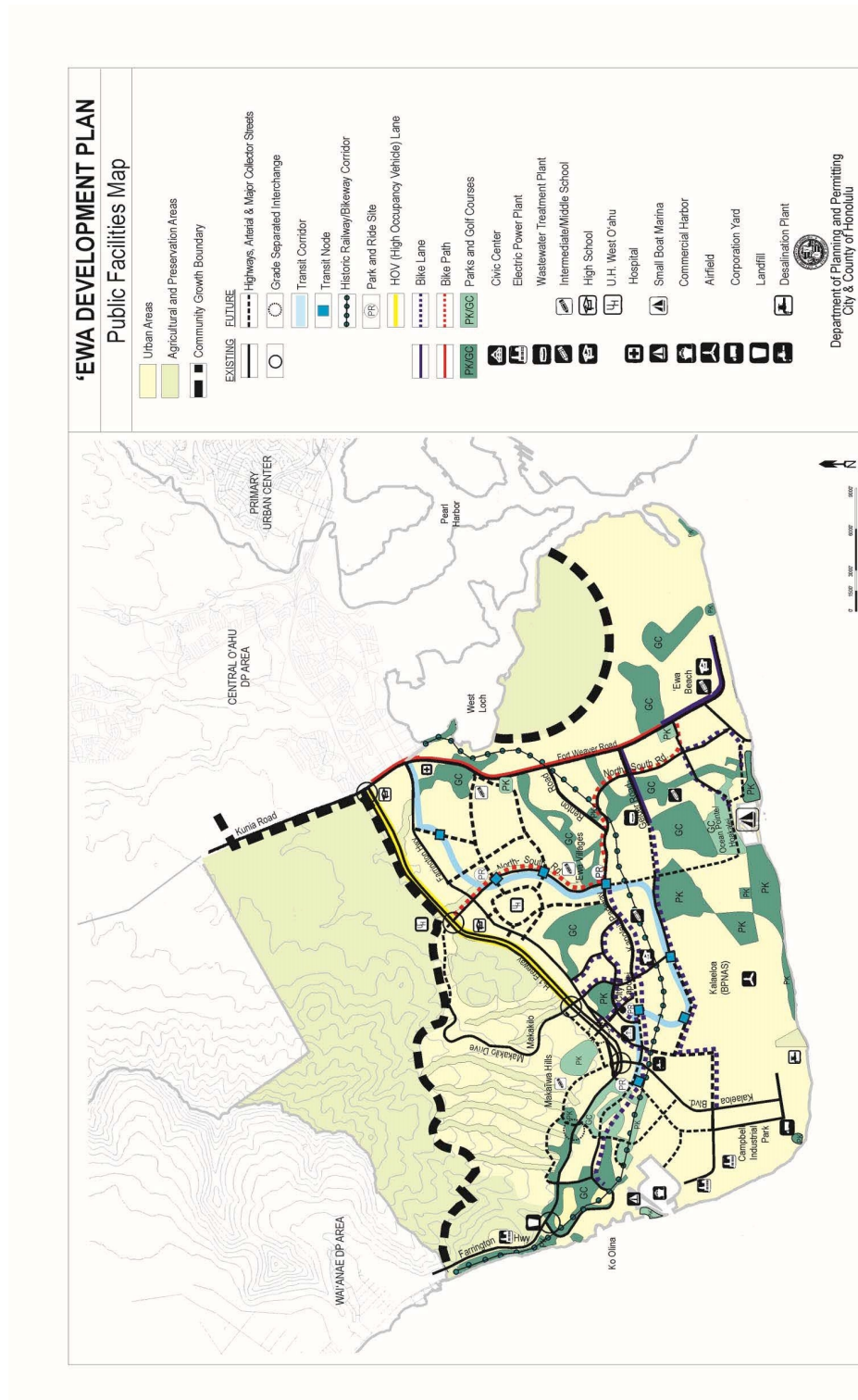




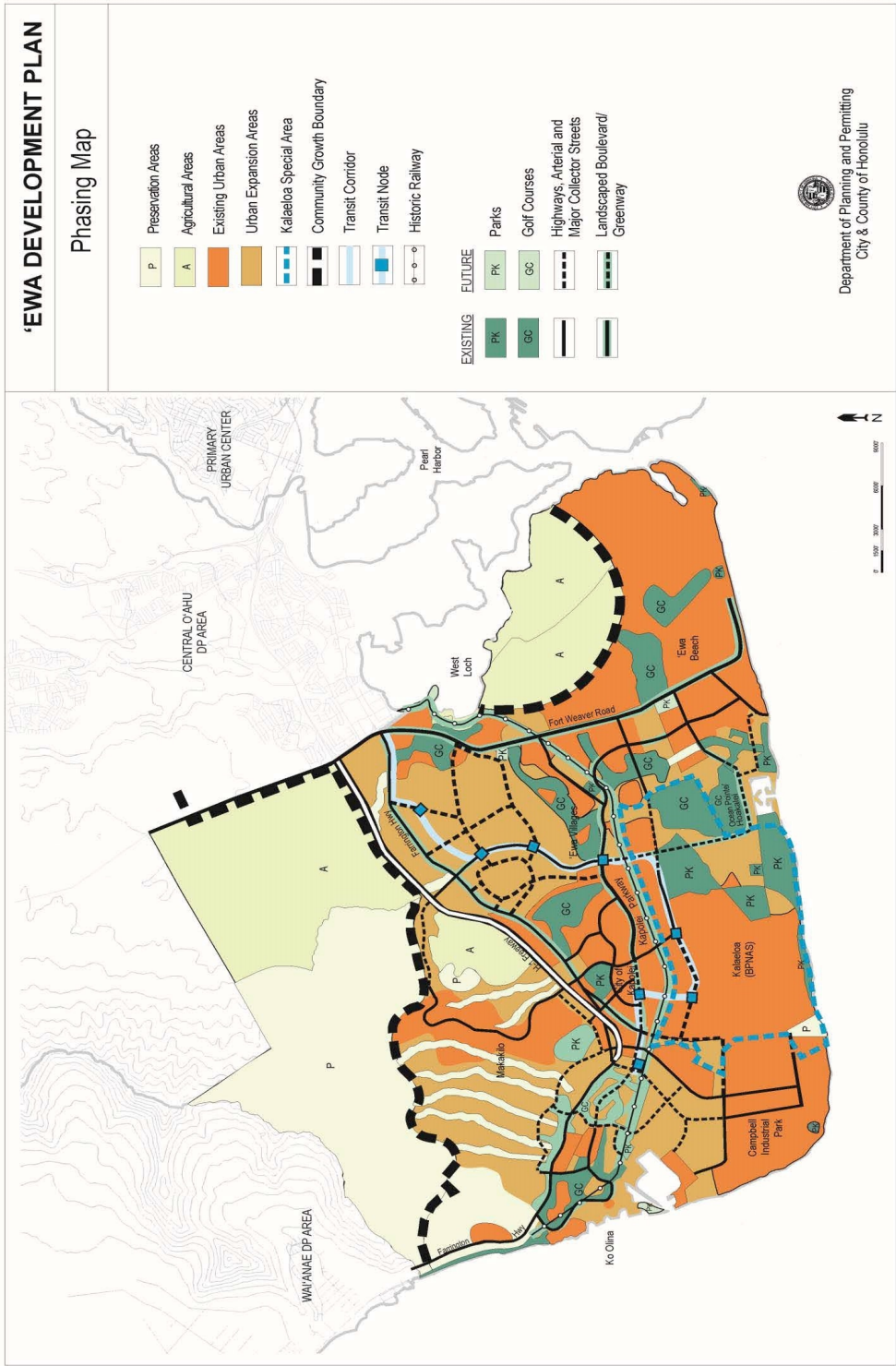














## ARTICLE 4: EAST HONOLULU

### Sections

24-4.1	Definitions
24-4.2	Applicability
24-4.3	Adoption of the East Honolulu development plan
24-4.4	Existing zoning and subdivision ordinances
24-4.5	Consistency
24-4.6	Implementation
24-4.7	Zoning change applications
24-4.8	Review of development and other applications
24-4.9	Annual capital improvement program review
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24-4.13	Severability
24-4.14	Conflicting provisions

### § 24-4.1 Definitions.

Unless the context otherwise requires, the definitions contained in this section govern the construction of this article and the East Honolulu development plan.

**Charter.** The charter of the City and County of Honolulu 1973, as amended.

**City.** The City and County of Honolulu.

**Council.** The city council of the City and County of Honolulu.

**County.** The City and County of Honolulu.

**Department or Department of Planning and Permitting.** The department of planning and permitting of the City and County of Honolulu.

**Development.** Any public improvement project, or any public or private project requiring a zoning map amendment.

**Development Plan and Sustainable Communities Plan.** A plan document for a given geographic area which consists of conceptual schemes for implementing and accomplishing the development objectives and policies of the general plan for the several parts of the City and County of Honolulu.

**Director.** The director of planning and permitting.



***Environmental Assessment*** and ***EA***. A written evaluation prepared in compliance with the environmental quality commission's procedural rules implementing HRS Chapter 343 to determine whether an action may have a significant environmental effect.

***Environmental Impact Statement*** and ***EIS***. An informational document prepared in compliance with the environmental quality commission's procedural rules implementing HRS Chapter 343; and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic and social welfare of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

***Finding of No Significant Impact*** and ***FONSI***. A determination based on an environmental assessment that the subject action will not have a significant effect and, therefore, will not require the preparation of an environmental impact statement.

***Functional Plan***. The public facility and infrastructure plans prepared by public agencies to further implement the vision, policies, principles, and guidelines set forth in the East Honolulu development plan.

***General Plan***. The general plan of the City and County of Honolulu as defined by Charter § 6-1508.

***Planning Commission***. The planning commission of the City and County of Honolulu.

***Project Master Plan***. A conceptual plan that covers all phases of a development project. The "project master plan" shall be that portion of an EA or EIS which illustrates and describes how the project conforms to the vision for East Honolulu, and the relevant policies, principles, and guidelines for the site, the surrounding lands, and the region.

***Significant Zone Change***. A zone change which involves at least one of the following:

- (1) Any change in zoning of 25 or more acres of land to any zoning district or combination of zoning districts, excluding preservation or agricultural zoning districts;
- (2) Any change in zoning of more than 10 acres to a residential or country zoning district;
- (3) Any change in zoning of more than five acres to an apartment, resort, commercial, industrial or mixed use zoning district; or
- (4) Any development which would have a major social, environmental, or policy impact, or major cumulative impacts due to a series of applications in the same area.

***Special Area***. A designated area within the East Honolulu development plan area that requires more detailed planning efforts beyond what is contained in the East Honolulu development plan.

***Special Area Plan***. A plan for a special area.

***Unilateral Agreement***. A conditional zoning agreement made pursuant to the city's land use ordinance as part of the process of enactment of an ordinance for a zone change and that imposes conditions on a landowner's or developer's use of the property.



***Vision.*** The future outlook for the East Honolulu region extending out to the year 2020 and beyond that entails creation of an urban growth boundary, an open space network for preserving natural features, scenery and shoreline areas for public use, protection of historic and community resources, and provision of adequate infrastructure and community facilities to meet East Honolulu's future needs.

(1990 Code, Ch. 24, Art. 4, § 24-4.1) (Added by Ord. 99-19)

#### **§ 24-4.2 Applicability.**

- (a) The East Honolulu development plan area encompasses the entire area from the mountains to the southern shoreline of Oahu stretching from Makapuu Point on the eastern sector, along the ridgeline of Koolau Mountain Range in a westerly direction to the Ainakoa ridgeline and drainage channel on the western sector.
- (b) It is the intent of the East Honolulu development plan to provide a guide for orderly and coordinated public and private sector development in a manner that is consistent with applicable general plan provisions, recognizing this urban fringe area as one of the principal stable areas in the county for low-density residential development.
- (c) This article and the East Honolulu development plan are not regulatory. Rather, they are established with the explicit intent of providing a coherent vision to guide all new public and private sector development within East Honolulu. This article shall guide any development for East Honolulu, public investment in infrastructure, zoning and other regulatory procedures, and the preparation of the city's annual capital improvement program budget.

(1990 Code, Ch. 24, Art. 4, § 24-4.2) (Added by Ord. 99-19)

#### **§ 24-4.3 Adoption of the East Honolulu development plan.**

- (a) This article is adopted pursuant to Charter § 6-1509 and provides a self-contained development plan document for East Honolulu. Upon enactment of this article, all proposed developments will be evaluated against how well they fulfill the vision for East Honolulu enunciated in the East Honolulu development plan and how closely they meet the policies, principles, and guidelines selected to implement that vision.
- (b) The plan entitled "East Honolulu Sustainable Communities Plan," attached as an exhibit to this ordinance, has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes, and is adopted by reference and made part of this article.
- (c) Chapter 24, Article 1, entitled "Development Plan Common Provisions," in its entirety is no longer applicable to the East Honolulu development plan area. The East Honolulu development plan, as adopted by reference by this ordinance, supersedes any and all common provisions previously applicable to the East Honolulu area.
- (d) Ordinance 83-6, as amended, entitled, "Article 4, East Honolulu: Part I Development Plan Special Provisions for East Honolulu," and "Part II Development Plan Maps (Land Use and Public Facilities Maps) for East Honolulu," is repealed in its entirety.

(1990 Code, Ch. 24, Art. 4, § 24-4.3) (Added by Ord. 99-19)



**§ 24-4.4 Existing zoning and subdivision ordinances.**

- (a) All existing subdivisions and zoning approved before July 27, 1999,\* including but not limited to those subject to unilateral agreements, shall continue to remain in effect following July 27, 1999.\*
  - (b) Subdivision and zoning ordinances applicable to the East Honolulu development plan area enacted before July 27, 1999\* shall continue to regulate the use of land within demarcated zones of the East Honolulu development plan area until such time as the subdivision and zoning ordinances may be amended to be consistent with the revised East Honolulu development plan.
  - (c) Notwithstanding adoption of the revised East Honolulu development plan, application for subdivision actions and land use permits accepted by the department for processing before July 27, 1999\* shall continue to be subject only to applicable ordinances and rules in effect when the application is accepted for processing.
- (1990 Code, Ch. 24, Art. 4, § 24-4.4) (Added by Ord. 99-19)

***Editor's note:***

\* "July 27, 1999" is substituted for "the effective date of this ordinance."

**§ 24-4.5 Consistency.**

- (a) The performance of prescribed powers, duties, and functions by all city agencies shall conform to and implement the policies and provisions of this ordinance. Pursuant to Charter § 6-1511.3, public improvement projects and subdivision and zoning ordinances shall be consistent with the East Honolulu development plan.
- (b) Any questions of interpretation regarding the consistency of a proposed development with the East Honolulu development plan and the objectives and policies of the general plan shall ultimately be resolved by the council.
- (c) In determining whether a proposed development is consistent with the East Honolulu development plan, the responsible agency shall primarily take into consideration the extent to which the development is consistent with the vision, policies, principles, and guidelines set forth in the East Honolulu development plan.
- (d) Whenever there is a question regarding consistency between existing subdivision or zoning ordinances, including any unilateral agreements, and the East Honolulu development plan, the existing subdivision or zoning ordinances shall prevail until such time as they may be amended to be consistent with the East Honolulu development plan.

(1990 Code, Ch. 24, Art. 4, § 24-4.5) (Added by Ord. 99-19)

**§ 24-4.6 Implementation.**

Implementation of this article relating to the East Honolulu development plan will be accomplished by the following:

- (1) Guiding development in special areas of critical concern, such as Ka Iwi Shoreline through the formulation of a special area plan;



- (2) Guiding public investment in infrastructure which supports the vision of the East Honolulu development plan;
  - (3) Promoting the policies and guidelines contained in the East Honolulu development plan as the basis of assuring consistency of developments and other improvement projects with the East Honolulu development plan;
  - (4) Incorporating the East Honolulu development plan priorities in preparation of the city's annual capital improvement program and budget;
  - (5) Evaluating progress in achieving the vision of the East Honolulu development plan periodically and presenting the results of the evaluation in the biennial report which is required by Charter § 6-1510.4; and
  - (6) Reviewing the vision of the East Honolulu development plan every five years and revising, as necessary, on the basis of that review, the policies, guidelines, and capital improvement program investments therein.
- (1990 Code, Ch. 24, Art. 4, § 24-4.6) (Added by Ord. 99-19)

**§ 24-4.7 Zoning change applications.**

- (a) All zone change applications relating to land in the East Honolulu development plan area will be reviewed by the department for consistency with the general plan, the East Honolulu development plan, and any applicable special area plan.
  - (1) The director will recommend either approval, approval with changes, or denial. The director's written review of the application shall become part of the zone change report which will be sent to the planning commission and the city council.
  - (2) A project master plan shall be a part of an EA or EIS for any project involving 25 acres or more of land. The director shall review the project master plan for its consistency with the East Honolulu development plan.
  - (3) Any development or phase of a development already covered by a project master plan which has been fully reviewed under this article shall not require a new project master plan; provided that the director determines that the proposed zone change is generally consistent with the existing project master plan for the affected area.
  - (4) If a final EIS has already been accepted for a development, including one accepted before July 27, 1999,\* then a subsequent project master plan shall not be required for the development.
- (b) For projects which involve a significant zone change, an environmental assessment shall be submitted to the department of planning and permitting before an application for a zone change being accepted. Any development or phase of a development which has already been assessed under the National Environmental Policy Act, HRS Chapter 343, ROH Chapter 25, or this article, and for which a FONSI has been filed or a required EIS has been accepted, shall not be subject to further EA or EIS requirements under this chapter.



- (c) The environmental assessment will be reviewed by the department. Based on review of the environmental assessment, the director will determine whether an environmental impact statement will be required or whether a FONSI may be issued.
  - (d) If an environmental impact statement is required, the environmental impact statement shall be accepted by the director before a zone change application may be initiated.
  - (e) Zone changes shall be processed in accordance with this section, Section 5.4 of the East Honolulu development plan, and Chapter 21.
- (1990 Code, Ch. 24, Art. 4, § 24-4.7) (Added by Ord. 99-19)

***Editor's note:***

*\* "July 27, 1999" is substituted for "the effective date of this ordinance."*

**§ 24-4.8 Review of development and other applications.**

The review of applications for zone changes and other development approvals will be guided by the vision of the East Honolulu development plan. Decisions on all proposed developments shall be based on the extent to which the project enabled by the development approval supports the policies, principles, and guidelines of the East Honolulu development plan. The director may review other applications for improvements to land to help the responsible agency determine whether a proposed improvement supports the policies, principles, and guidelines of the East Honolulu development plan.

(1990 Code, Ch. 24, Art. 4, § 24-4.8) (Added by Ord. 99-19)

**§ 24-4.9 Annual capital improvement program review.**

Annually, the director shall work jointly with the director of budget and fiscal services and the applicable city agencies to review all projects in the city's capital improvement program and budget for compliance and consistency with the general plan, the East Honolulu development plan and other development plans, any applicable special area plans, and appropriate functional plans. The director will prepare a written report of findings to be included in the budget submittal to the council.

(1990 Code, Ch. 24, Art. 4, § 24-4.9) (Added by Ord. 99-19)

**§ 24-4.10 Five-year review.**

- (a) The department shall conduct a comprehensive review of the East Honolulu development plan, every five years after July 27, 1999\* and shall report its findings and recommended revisions to the city council.
- (b) The East Honolulu development plan will be evaluated to assess the appropriateness of the plan's regional vision, policies, design principles and guidelines, and implementing actions, as well as its consistency with the general plan.



(c) Nothing in this section shall be construed as prohibiting the processing of a revision to the East Honolulu development plan in accordance with the Charter.

(1990 Code, Ch. 24, Art. 4, § 24-4.10) (Added by Ord. 99-19)

***Editor's note:***

*\* "July 27, 1999" is substituted for "the effective date of this ordinance."*

**§ 24-4.11 Biennial report.**

In addition to meeting the requirements of Charter § 6-1510.4, the department of planning and permitting's biennial report shall also address the county's achievements and progress in fulfilling the vision of the East Honolulu development plan.

(1990 Code, Ch. 24, Art. 4, § 24-4.11) (Added by Ord. 99-19)

**§ 24-4.12 Authority.**

Nothing in this article shall be construed as an abridgement or delegation of the responsibility of the director, or of the inherent legislative power of the city council, to review or revise the East Honolulu development plan pursuant to the Charter and the above procedures.

(1990 Code, Ch. 24, Art. 4, § 24-4.12) (Added by Ord. 99-19)

**§ 24-4.13 Severability.**

If this article or the application thereof to any person or property or circumstances is held invalid, such invalidity shall not affect other provisions or applications of this article which can be given effect without the invalid provision or application, and to this end the provisions of this article are declared to be severable.

(1990 Code, Ch. 24, Art. 4, § 24-4.13) (Added by Ord. 99-19)

**§ 24-4.14 Conflicting provisions.**

This article shall, with respect to the East Honolulu development plan area, prevail should there be any conflict with the common provisions or any other provisions under Chapter 24.

(1990 Code, Ch. 24, Art. 4, § 24-4.14) (Added by Ord. 99-19)



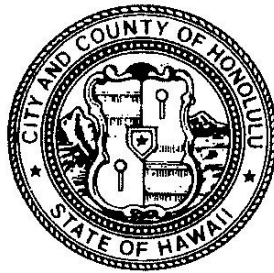
## **Honolulu - Land Use**



# **EAST HONOLULU**

## ***SUSTAINABLE* COMMUNITIES PLAN**

**CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING AND PERMITTING**



**April 1999**

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## **Honolulu - Land Use**



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**PREFACE & EXECUTIVE SUMMARY**

The East Honolulu *Sustainable* Communities Plan has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes. It is one of a set of eight community-oriented plans intended to help guide public policy, investment, and decision-making through the 2020 planning horizon. Each of the plans addresses one of eight geographic planning regions on Oahu, responding to the specific conditions and community values of each region. The map on the following page illustrates these planning regions.

Two of the eight planning regions, Ewa and the Primary Urban Center, are the areas to which major growth in population and economic activity will be directed over the next 20 years and beyond. The plans for these regions will continue to be titled “Development Plans,” and will serve as the policy guides for the development decisions and actions required to support that growth.

The remaining six planning regions, including East Honolulu, are envisioned to remain relatively stable. The plans for those regions have been titled “*Sustainable* Communities Plans” and are focused on serving as policy guides for public actions in support of that goal. The vision statement and supporting provisions of the East Honolulu *Sustainable* Communities Plan are oriented toward maintaining and enhancing the region’s ability to sustain its unique character and lifestyle.

**P.1 THE *SUSTAINABLE* COMMUNITIES PLAN PROCESS**

This Plan is the culmination of the Charter-mandated development plan revision effort led by the City and County of Honolulu’s planning department and its successor agency, the department of planning and permitting. This effort was comprised of a process that encouraged and enabled significant involvement from the region’s neighborhood boards, community associations, and numerous individuals. This plan will have incorporated input received from:

- Six meetings of the Resident Advisory Group,
- Public workshops,
- Extensive review and evaluation of landowners’ court submissions regarding their long-term development proposals,
- Two Public Information Meetings, and
- Many meetings with community leaders and representatives of government agencies.

**P.2 LAND USE PLANNING AND MANAGEMENT IN HONOLULU**

The City and County of Honolulu guides and directs land use and growth through a three-tier system of objectives, policies, planning principles, guidelines and regulations. The General Plan forms the first tier of this system. First adopted by resolution in 1977, the General Plan is a relatively brief document, consisting primarily of one-sentence statements of objectives and policies. It has been amended several times, but the basic objectives and policies set forth in the 1977 plan remain intact.



The second tier of the system is formed by the development plans, which are adopted and revised by ordinance. These plans address eight geographic regions of the island; the Primary Urban Center, Central Oahu, Ewa, Waianae, North Shore, Koolauloa, Koolaupoko and East Honolulu. The East Honolulu Development Plan was first adopted in 1983. The development plans for East Honolulu, Waianae, North Shore, Koolauloa, and Koolaupoko are now referred to as *Sustainable Community Plans*.

The third tier of the system is composed of the implementing ordinances, including the Land Use Ordinance (Honolulu's zoning code) and the City's Capital Improvement Program. Mandated by the City Charter, these ordinances constitute the principle means for implementing the City's plans. These ordinances are required to be consistent with the General Plan, the Development Plans (or *Sustainable Community Plans*), and each other.

In addition to these three Charter-mandated tiers, the development plans are supplemented by two planning mechanisms that are not required by the Charter, including the functional planning process and special area planning. Functional planning activities, some of which are mandated by state or federal regulations, provide long-range guidance for the development of public facilities such as the water system, wastewater disposal, and transportation. Special area plans are intended to give specific guidance for neighborhoods, communities or specialized resources.

### **P.3 AUTHORITY OF THE DEVELOPMENT PLANS AND *SUSTAINABLE* COMMUNITIES PLANS**

The authority of the Development Plans is derived from the City Charter, which mandates preparation of a General Plan and development plans to guide "the development and improvement of the city." Together with the General Plan, the development plans provide a policy context for the land use and budgetary actions of the City. This is the authority the originally adopted development plans carried, and it remains unchanged in the *Sustainable Communities Plan* presented in this document.

The Charter provides that "public improvement projects and subdivision and zoning ordinances shall be consistent with the development plan for that area." Although the development plans (or *Sustainable Communities Plans*) are not themselves regulatory, they "regulate the regulators." They are policy tools and are to be used, in conjunction with the programs and budgets of the City, to accomplish the objectives of the City and as guides for the decisions made in the private sector.

### **P.4 WHY THE DEVELOPMENT PLANS HAVE BEEN REVISED**

In 1992 the City Charter Commission recommended, and the voters of Honolulu adopted, amendments to the City Charter. Chief among its findings, the Charter Commission concluded that the development plans were overly detailed and had engendered processes that duplicated the zoning process. To eliminate this unnecessary duplication, the 1992 Charter amendments changed the definition of development plans from "relatively detailed plans" to "conceptual schemes."

The 1992 Charter amendments established that the purpose of the development plans is to provide:

- "priorities....(for the) coordination of major development activities"; and
- sufficient description of the "desired urban character and the significant natural, scenic and cultural resources....to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions."



In response to the 1992 Charter amendments, the planning and permitting department launched a thorough review of the development plans. The goal of that review was the revision of all eight of the development plans to bring them into conformance with the Charter-mandated conceptual orientation. The revised plan presented in this document conforms to that mandate.

## **P.5 EXECUTIVE SUMMARY OF THE EAST HONOLULU *SUSTAINABLE* COMMUNITIES PLAN**

This plan, which is incorporated into Ordinance 98-75 CD2 by reference, is organized in five chapters and an appendix, as follows:

- Chapter 1: East Honolulu's Role in Oahu's Development Pattern defines the region's role and identity within the overall framework of islandwide planning and land use management.
- Chapter 2: The Vision for East Honolulu's Future summarizes the vision for the future of the region and lists important elements of that vision.
- Chapter 3: Land Use Policies, Principles, and Guidelines presents the Plan's core policies, and provides policy guidance for the region's various land use elements.
- Chapter 4: Public Facilities and Infrastructure Policies and Principles outlines policies, principles and actions needed to support the land use policies of Chapter 3.
- Chapter 5: Implementation addresses needs for carrying out provisions outlined by the Plan.

The contents of each chapter are briefly summarized below:

### **P.5.1 Chapter 1: East Honolulu's Role in Oahu's Development Pattern**

Consistent with the directed growth provisions of the General Plan, East Honolulu is targeted for very little growth over the 20-25 year projection horizon of this plan. Policies in support of this goal limit the potential for expansion of the region's housing stock, commercial centers and economic activity, and are focused on maintaining the patterns of development characteristic of its residential neighborhoods.

### **P.5.2 Chapter 2: The Vision for East Honolulu's Future**

This vision is shaped around two principal concepts. The first of these calls for protection of the community's natural, scenic, cultural, and historic resources. The second principal concept addresses the need to improve and replace, as necessary, the region's aging infrastructure systems, and to adapt the housing supply to accommodate modest expected increases in residents and the changing demographic profile of East Honolulu's aging population. Seven key elements of the vision are identified, including:

- Establish an Urban Community Boundary to contain the spread of urban development; and Agriculture Boundaries to protect and preserve the regions' existing agricultural areas;
- Preserve the scenic value of the Koko Head-Makapuu viewshed;
- Maintain the urban form of ridge-and-valley neighborhoods;



- Expand access to mountain and shoreline recreational areas;
- Protect and preserve natural areas;
- Adapt the housing supply to the region's changing demographics; and
- Focus the commercial centers on serving the region's neighborhoods.

### **P.5.3 Chapter 3: Land Use Policies, Principles, and Guidelines**

This chapter presents general policies, planning principles and guidelines for the major concerns related to land use in East Honolulu. General policies related to each land use type are summarized below:

#### **P.5.3.1 Open Space Preservation:**

- Protect scenic views, provide recreation and promote access to shoreline and mountain areas.
- Define the boundaries of communities and provide fire safety buffers.
- Create a linear system of landscaped pathways along roadways and drainage ways.

#### **P.5.3.2 Island-Based Parks and Recreation:**

- Employ appropriate screening and siting.
- Ensure environmental compatibility in the design and construction of park facilities.
- Integrate recreational opportunities with the characteristics of the surrounding community.

#### **P.5.3.3 Community-Based Parks:**

- Increase the inventory of community-based parks to provide appropriately located sports and recreation facilities.
- Modify recreation facilities and increase access to school facilities to respond to changing demographic profiles and recreation needs.
- Require developers of new residential projects to provide land for open space and recreation purposes, rather than paying the park dedication fee.
- Pursue development of linear parkways along streams and drainage channels.

#### **P.5.3.4 Historic and Cultural Resources:**

- Recommend in situ preservation and appropriate protection for sites with high preservation value.
- Determine appropriate treatment for a historic site by the particular qualities of the site and its relationship to the surroundings.



- Determine the degree of access appropriate to promotion and preservation of the historic, cultural, and educational value of each site.

**P.5.3.5 Residential Uses:**

- Increase the region's housing capacity primarily through infill development of existing residential areas.
- Respond to the changing needs of East Honolulu's aging population by providing for development of a variety of housing opportunities affordable to low- and moderate-income, gap group, and other elderly households.
- Modify residential street design to provide emphasis on safe, accessible, convenient, and comfortable pedestrian routes, bus stops, and bike routes.

**P.5.3.6 Nonresidential Development:**

- Identify and define commercial uses in various categories appropriate to the character and needs of East Honolulu's communities, including: neighborhood commercial centers; the regional town center; and areas supporting resort and institutional uses.
- Limit the growth of commercial centers, resorts and institutions to current sites.

**P.5.4 Chapter 4: Public Facilities and Infrastructure Policies and Principles**

This chapter presents general policies and planning principles for the major concerns related to public facilities and infrastructure in East Honolulu. General policies related to each facility type are summarized below:

**P.5.4.1 Transportation Systems:**

- Reduce reliance on the private passenger vehicle by promoting transportation system management (e.g., contraflow lane operations) and travel demand management (e.g., transit, carpool and vanpool programs) measures for both commuting and local trips.
- Provide adequate and improved mobility between communities, shopping, and recreation centers, especially by enhancing pedestrian, bicycle and transit modes of travel.
- Maintain adequate person-carrying capacity for peak-period commuting to and from work in the Primary Urban Center.

**P.5.4.2 Water Systems Development:**

- Integrate management of all potable and nonpotable water sources, including groundwater, stream water, stormwater, and effluent, following State and City legislative mandates.
- Adopt and implement water conservation practices in the design of new developments and the modification of existing uses, including landscaped areas.



**P.5.4.3 Wastewater Treatment:**

- Connect all wastewater produced within the Urban Community Boundary area to a municipal or publicly regulated sewer service system.
- Treat and reuse, where feasible, wastewater effluent as a water conservation measure.
- Provide buffer zones and landscape elements between the East Honolulu WWTP and adjacent residential designated areas.

**P.5.4.4 Electrical Power Development:**

- Design system elements and incrementally replace facilities such as substations, transmission lines and towers to avoid or mitigate any potential adverse impacts on scenic and natural resource values and to enhance system reliability.

**P.5.4.5 Solid Waste Handling and Disposal:**

- Continue efforts to establish more efficient waste diversion and collection systems.
- Expand the use of automated refuse collection in residential areas.

**P.5.4.6 Drainage Systems:**

- Promote drainage system design, which emphasizes control and minimization of nonpoint source pollution and the retention of stormwater on-site and in wetlands.
- View stormwater as a potential irregular source of water for recharge of the aquifer that should be retained for absorption rather than quickly moved to coastal waters.
- Select natural and man-made vegetated drainageways and retention basins as the preferred solution to drainage problems wherever they can promote water recharge, help control nonpoint source pollution, and provide passive recreation benefits.
- Keep drainageways clear of debris to avoid the flooding problems that have occurred in the past.

**P.5.4.7 School Facilities:**

- Approve new residential developments only after the state department of education certifies that adequate school facilities will be available when the development is completed.
- Require that developers pay their fair share of all costs needed to ensure provision of adequate school facilities for the children living in their developments.

**P.5.4.8 Civic and Public Safety Facilities:**

- Provide adequate staffing and facilities to ensure effective and efficient delivery of basic governmental service and protection of public safety.



**P.5.5 Chapter 5: Implementation**

This chapter discusses the various measures that will be necessary to ensure timely implementation of the plan, including those measures that will minimize disruption during the transition into the plan. Among the measures addressed by this chapter, changes to the zoning maps and the Land Use Ordinance will be necessary to achieve required consistency with the *Sustainable Communities Plan*, as will various other regulatory codes and standards. This chapter also addresses monitoring of plan implementation and provides for comprehensive review of the plan at 5-year intervals.

**P.5.6 Appendix A**

The appendix provides three color maps that illustrate some of the plan's textual provisions. Because these maps are intended merely to be illustrative of the text, if there are any conflicts between the maps and the text, the text shall prevail.



## 1. EAST HONOLULU'S ROLE IN OAHU'S DEVELOPMENT PATTERN

The General Plan of the City and County of Honolulu designates the East Honolulu Development Plan Area (DPA), shown in **Figure 1-1**, as an urban fringe area to remain predominantly residential with limited future population growth. General Plan policies call for developing and maintaining development characteristics which make East Honolulu a desirable place to live.

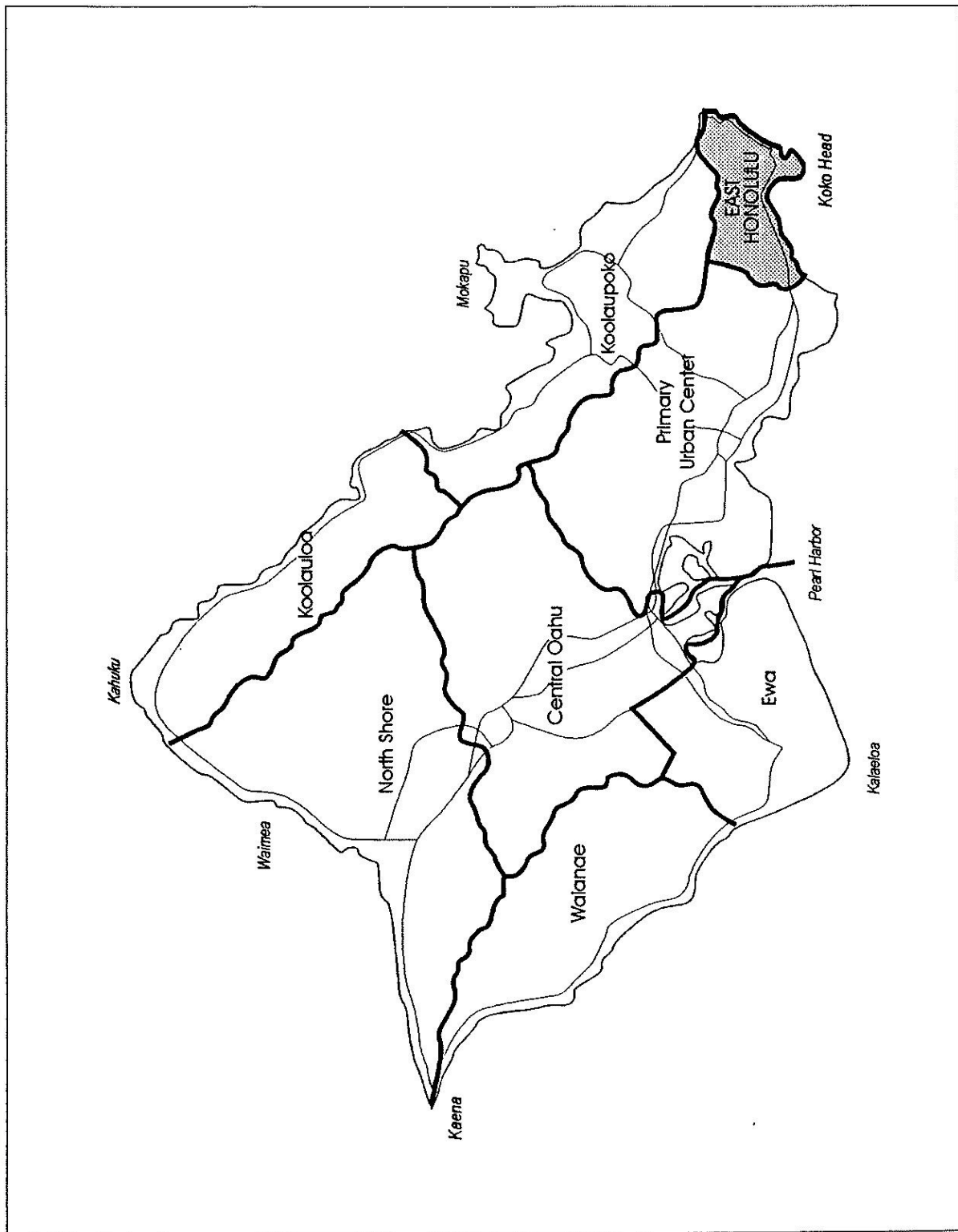
The present land use pattern and suburban character of East Honolulu began to take shape with the inauguration of the master planned community of Hawaii Kai in 1961. Prior to that time, most of this region was regarded as too far removed from Honolulu to be suitable for large scale residential development. Building on the momentum that Hawaii Kai was creating in the 1960s and 1970s, residential development spread quickly to the valleys of Kamiloiki and Kalama and to Mariner's Ridge. With the development of newer communities at Kamehame Ridge, Hawaii Loa Ridge, and portions of Waialae Iki, most of the ridges and valleys in East Honolulu from Kahala to Kalama Valley have been developed with residential use. In the past 2 decades, however, the rate of urban growth in East Honolulu has slowed as the availability of suitable development sites has diminished.

This update reaffirms East Honolulu's role in Oahu's development pattern as intended in the General Plan policies by establishing the following principles for future land use and development in the East Honolulu *Sustainable Communities Plan*:

- Limit the potential for new housing in the region so that significant residential growth is directed instead to the Primary Urban Center, Ewa, and Central Oahu Development Plan Areas.
- Limit the expansion of commercial centers and economic activity in the region to promote the development and growth of employment in the Primary Urban Center, and potentially the designated secondary urban center in the Ewa Development Plan Area.
- Maintain the region's predominantly low-rise, low-density form of residential development.
- Avoid flood damage, slippage and other problems associated with development of steep slopes and sites with expansive soils.
- Utilize the design capacity of Kalaniana'ole Highway, the region's key component of transportation, as a means to manage urban growth.
- Preserve scenic views of ridges, upper valley slopes, shoreline areas from Kalaniana'ole Highway and from popular hiking trails that extend from Koko Head to Makapuu Head.
- Promote access to mountain and shoreline resources for recreational purposes and traditional hunting, fishing, gathering, religious, and cultural practices.



Figure 1-1: Development Plan Areas for Oahu





## 2. THE VISION FOR EAST HONOLULU'S FUTURE

This chapter presents a statement of the vision for East Honolulu's future, discusses the key elements of the vision, and presents illustrative maps and tables.

### 2.1 VISION STATEMENT

The vision for East Honolulu extends to the year 2020. This is the horizon that was used to project potential residential development capacity of the region. Between 1995 and 2020, East Honolulu is projected to experience minimal population growth. According to projections prepared in 1995 by the City's planning and permitting department, East Honolulu's population might be expected to increase from 45,850 in 1995 to approximately 51,800 by 2020, or by less than 1 percent per year. Population growth of this magnitude is not expected to generate significant demand for additional commercial development in the region. As discussed below, the vision for East Honolulu focuses on the long-term protection of community resources and adapting to changing community needs.

#### 2.1.1 PROTECT COMMUNITY RESOURCES

The East Honolulu *Sustainable* Communities Plan provides a vision for preservation, conservation, and enhancement of community resources.

- ***Protect Natural and Scenic Resources.*** Significant scenic views of ridges, upper valley slopes, and shoreline areas from Kalanianaʻole Highway and scenic views from popular hiking trails that extend from Koko Head to Makapuu Head must be protected. Furthermore, access to shoreline areas and mountainous regions will be improved and provided for all to use.
- ***Preserve Cultural and Historical Resources.*** These resources will be preserved by retaining visual landmarks and significant views, and by preserving significant historic, cultural, and archaeological features from East Honolulu's past.

#### 2.1.2 ADAPT TO CHANGING COMMUNITY NEEDS

Although East Honolulu is nearly built out, it will be essential that the changing demographics of the region's communities be addressed. East Honolulu's growing elderly population, trend of older couples or "empty nesters" moving out of single-family dwellings and younger families moving in, and observed increase in "multigeneration" households will likely require different housing types and services.

In addition, the region's housing stock and infrastructure systems are aging. Incrementally, existing structures and facilities will be modified, expanded, or replaced due to obsolescence. *Sustainable* Communities Plan policies provide long-term direction for this gradual physical transformation.

## 2.2 KEY ELEMENTS OF THE VISION

The vision for East Honolulu's future will be implemented through the following key elements:

- Urban community, agriculture and preservation boundaries;
- The Koko Head-Makapuu scenic district;



- Ridge-and-valley neighborhoods;
- Mauka-makai recreational access;
- Protection and preservation of natural areas;
- Housing stability;
- Hawaii Kai Town Center; and
- Neighborhood-oriented services.

Each of these elements is discussed below.

### **2.2.1 Establish Urban Community, Agriculture and Preservation Boundaries**

Three types of boundaries have been established to guide development and preserve open space and agriculture areas. These are the Urban Community Boundary, the Agriculture Boundary and the Preservation Boundary. It is intended these boundaries will remain fixed through the 2020 planning horizon. They are intended to help guide future development, redevelopment, and resource management within existing zoning designations or future zoning designations and other standards or guidelines that may be developed in response to the provisions of this plan, other established entitlements, or in accordance with pertinent policy and character described in this plan.

#### **2.2.1.1 Urban Community Boundary**

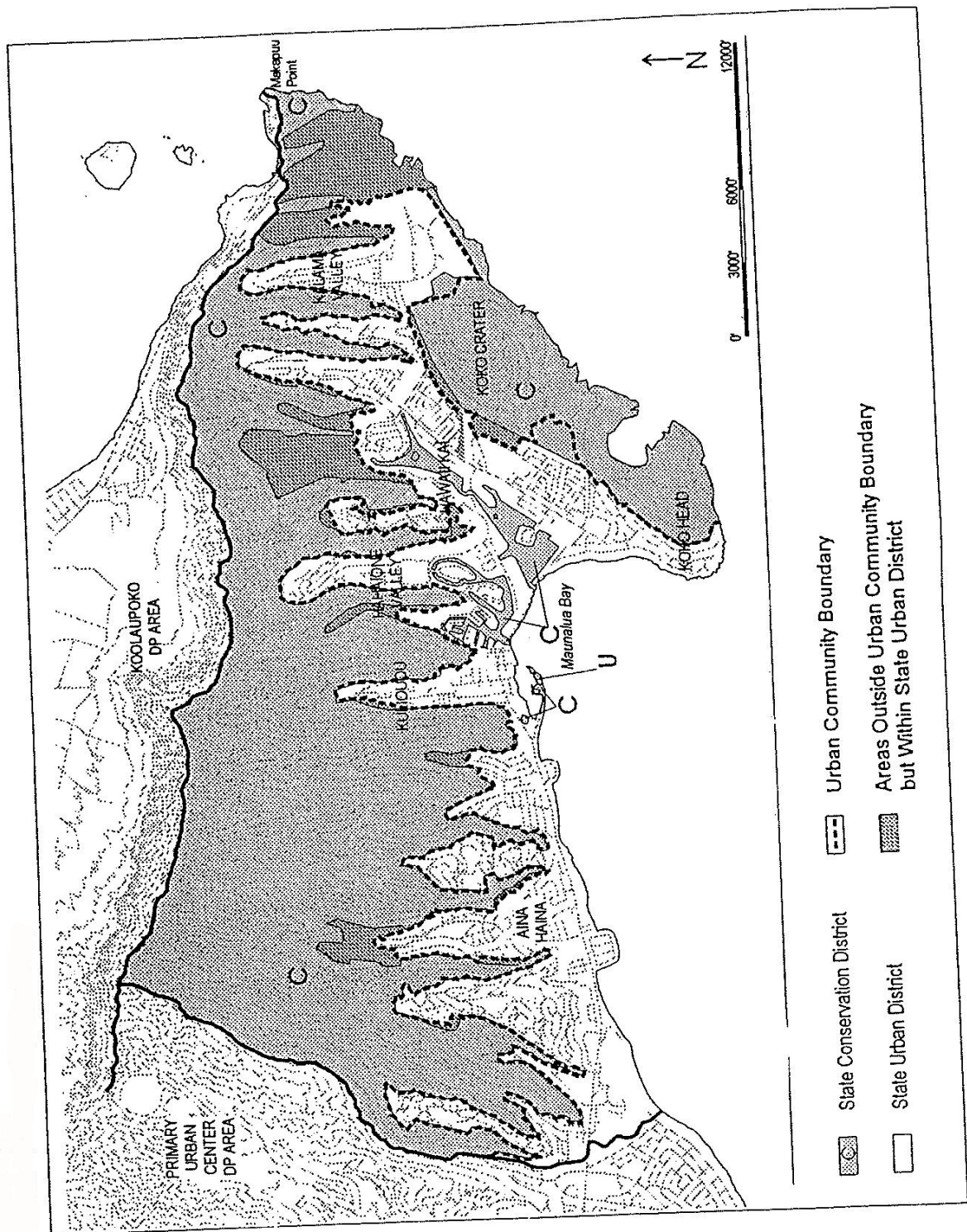
The Urban Community Boundary is established to define and contain the intended extent of urbanized or “built-up” areas within the East Honolulu district. The purpose is to accommodate modest increases in population, to provide adequate lands for facilities or other groupings of built uses needed to support established communities while protecting lands outside this boundary for agriculture and other resource and open space values. Areas within this boundary characteristically include extensive tracts of residential or commercial development clearly distinguishable from undeveloped or more “natural” portions of the region’s environment. The Urban Community Boundary may include areas designated “park” or “preservation,” or areas with development-related hazards such as steep slopes or unstable soils; it is intended these areas will not be developed with uses unsuitable to their designations or in ways that may tend to exacerbate those hazards.

The Urban Community Boundary is intended to confine most new development to “infill” sites that are adjacent to existing urbanized areas. A more compact form of development will result in relatively lower site development costs, more efficient utilization of existing urban infrastructure systems, and reduced reliance on the automobile by making transit ridership, walking, and bicycling more feasible and attractive as modes of travel.

The purpose of the Urban Community Boundary (see **Figure 2-1**) is to confine the spread of urban development while providing sufficient inventory of developable land to accommodate anticipated urban growth in the region through 2020. It is generally coterminous with the State Urban District boundary, but excludes the following areas of the State Urban District:



Figure 2-1: Urban Community Boundary





- Areas which are committed to agricultural use by long-term leases (i.e., the farm lot subdivisions in Kamilonui Valley and adjacent to Kaiser High School);
- Undeveloped areas in Kamilonui Valley which are adjacent to existing agricultural uses;
- Large tracts of undeveloped lands at higher elevations that are prominently visible from the coastal highway or other public areas and are desirable natural scenic features; and
- Significant undeveloped Urban District land areas which the U.S. Geological Survey has identified as suspect areas for land movement.<sup>1</sup> (see **Figure 2-2**).

The six main objectives of the Urban Community Boundary are to:

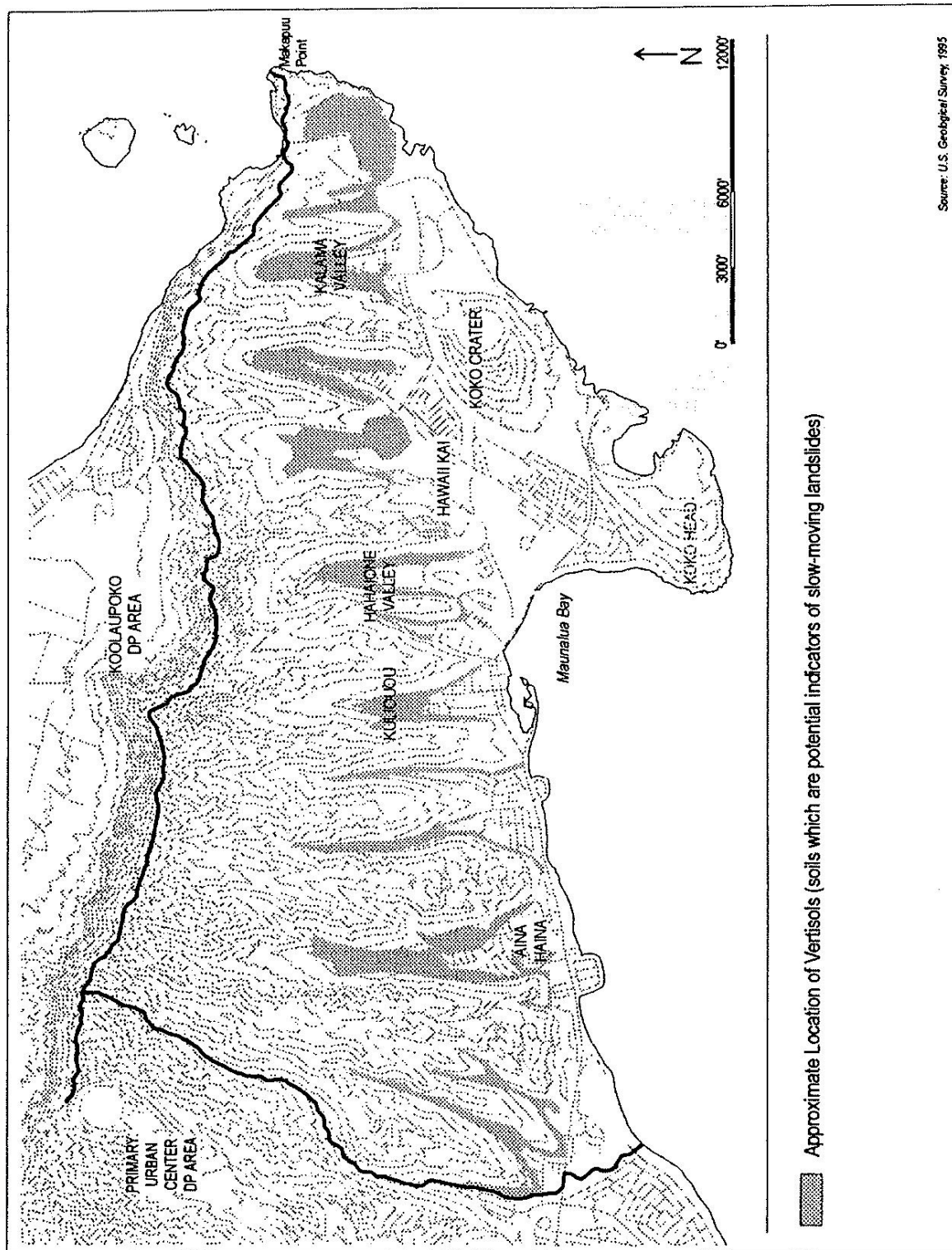
- ***Avoid Development of Hazardous Areas.*** Undeveloped lands on the fringes of urbanized areas which are characterized by steep slopes or unstable soils are placed outside of the Urban Community Boundary to prevent potential property damage and threat to public safety. These physical constraints also increase site development costs, which are passed on to housing consumers.
- ***Support General Plan Policy.*** Consistent with General Plan policy Housing Objective B, Policy 1, which aims to encourage the State government to coordinate its urban-area designations with the developmental policies of the City and County, the Urban Community Boundary indicates an appropriate adjustment to the State Land Use Urban District boundary.
- ***Support Agricultural Uses.*** Two areas in Hawaii Kai are placed outside of the Urban Community Boundary to recognize agricultural lots whose lease terms extend beyond 2020. Preventing the encroachment of suburban residential development within and surrounding these subdivisions supports active use of these lots for agricultural purposes.

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<sup>1</sup> U.S. Geological Survey, *Relation of slow-moving landslides to earth materials and other factors in valleys of the Honolulu District of Oahu, Hawaii*, Open-File Report 95-218, prepared in cooperation with the City and County of Honolulu, Department of Public Works (1995).



Figure 2-2: Suspect Areas for Land Movement



Source: U.S. Geological Survey, 1995



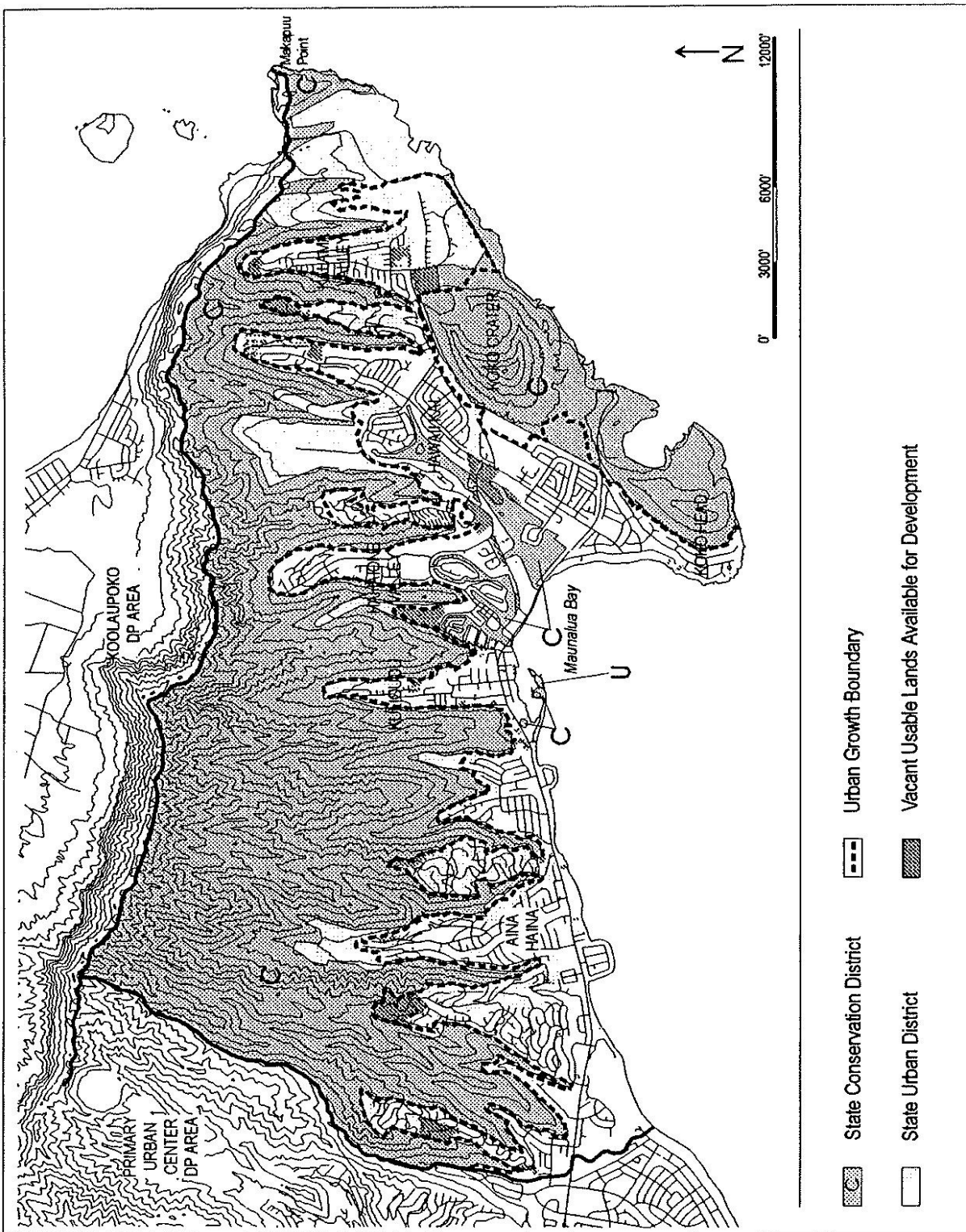
- ***Provide Sufficient Capacity for Projected Growth.*** Even with the amount of land reserved for parks and open space, there is ample capacity within the Urban Community Boundary to accommodate anticipated residential and commercial development to 2020 (see **Figure 2-3**). The Urban Community Boundary can accommodate approximately 2,600 potential new housing units (see **Table 2-1**). Combined with existing 1995 housing units, this translates to a total potential population in East Honolulu of between 48,300 and 52,600, which is consistent with the planning and permitting department's projected population for the year 2020.

**Table 2-1****Capacity for Growth within the Urban Community Boundary**

<b>Potential New Housing Units</b>	
On Vacant Usable Lands	
Parcels 5 Acres and Larger	1,800
Parcels Less than 5 Acres	700
Ohana Units	100
Total Potential New Housing Units	2,600
<b>Potential Population</b>	
From New Housing Units	6,200 - 6,800
From Existing 1995 Housing Units	42,100 - 45,900
Total Potential Population	48,300 - 52,600
Planning and permitting Department Projected 2020 Population	51,800
Total Potential Population Over (Under)	
Planning and permitting Department Projected 2020 Population	
Persons	(3,500) - 800
Percent	(6.7%) - 1.5%



**Figure 2-3: Vacant Usable Lands Available for Development Within the Urban Growth Boundary**





- ***Promote an Efficient Pattern of Urban Development.*** The Urban Community Boundary confines most new development to “infill” sites that are adjacent to existing urbanized areas on relatively level terrain. A more compact form of development on the coastal plain will result in relatively lower site development costs, more efficient utilization of existing urban infrastructure systems, and reduced reliance on the automobile by making transit ridership, walking, and bicycling more feasible and attractive as modes of travel.
- ***Protect Natural and Scenic Resources.*** By contracting the potential area for new urban development through the Urban Community Boundary, significant natural landscape features can be protected from physical changes that will permanently impair their scenic value. These scenic landscape elements include the ridges and valley walls that are visible from Kalanianaʻole Highway, particularly in the area between Koko Head and Makapuu Point (see **Figure 2-4**).

### 2.2.1.2 Agriculture Boundary

The Agriculture Boundary is established to protect the region’s agricultural lands for their economic and open space values. The primary use of all lands within the Agriculture Boundary must be agriculture or directly supportive of the agriculture industry.

Two areas in Hawaii Kai are placed within the Agriculture Boundary to recognize agricultural lots whose lease terms extend beyond 2020 (i.e., the farm lot subdivisions in Kamilonui Valley and adjacent to Kaiser High School). In addition, undeveloped areas in Kamilonui Valley which are adjacent to existing agricultural uses are placed within the Agriculture Boundary. Preventing the encroachment of suburban residential development within and surrounding the existing subdivisions supports active use of these lots for agricultural purposes.

### 2.2.1.3 Preservation Boundary

The Preservation Boundary is established to protect undeveloped lands which form an important part of the region’s open space fabric but that are not valued primarily for agricultural uses. Such lands include important wildlife habitat, archaeological or historic sites, significant landforms or landscapes over which significant views are available, and development-related hazard areas.

The Preservation Boundary generally circumscribes undeveloped lands that:

- Are necessary for protection of watersheds, water resources and water supplies;
- Are necessary for the conservation, preservation and enhancement of sites with scenic, historic, archaeological or ecological significance;
- Are necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish and wildlife, for forestry, and other activities related to these uses;
- Are located at an elevation below the maximum inland line of the zone of wave action, and marine waters, fishponds, and tidepools unless otherwise designated;



- Are generally characterized by topography, soils, climate or other related environmental factors that may not be normally adaptable or presently needed for urban community or agriculture use;
- Have general slopes of 20 percent or more which provide for open space amenities and/or scenic values;
- Are susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the land's susceptibility to landslides and/or inundation by tsunami and flooding;
- Are used for State or city parks outside the Urban Community Boundary; or
- Are suitable for growing commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when such facilities are compatible with the natural and physical environment.

The Preservation Boundary excludes such features, sites or areas located within the Urban Community or Agriculture boundaries.

#### **2.2.2 PRESERVE THE SCENIC VALUE OF THE KOKO HEAD-MAKAPUU VIEWSHED**

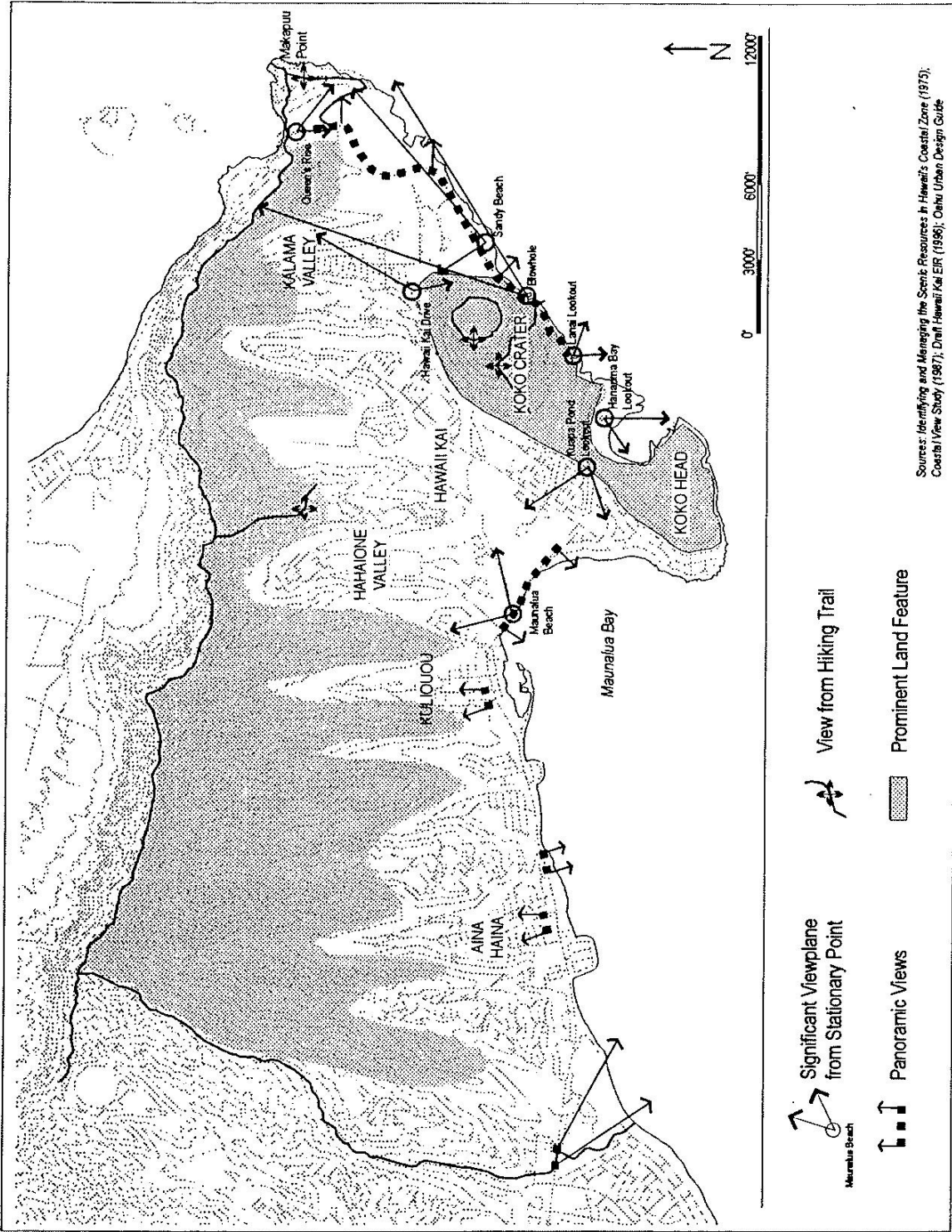
The rugged coastal lands between Koko Head and Makapuu Point are among Oahu's most unique and spectacular scenic resources, offering mauka and makai views from many vantage points (see **Figure 2-4**). Protection of the scenic value of this viewshed has island-wide importance because of its attraction to both residents and visitors. Preserving one of Oahu's most popular visitor resources is critical to our economy since tourism, our base industry, continues to grow in significance.

Nowhere else on the island, with the exception of the Kaena coastline, are there elements of a natural environment in one large, contiguous area of undeveloped open space. Unlike Kaena, however, the Koko Head-Makapuu coastline is easily accessible by vehicle. While easy access benefits the public's recreational needs, it can also contribute to degradation of the area's resources. Overuse, misuse, and potential urban encroachment, particularly in the Queen's Beach vicinity, are pressures which threaten the integrity of this coastal area.

The resources of the Koko Head-Makapuu region should be protected and enhanced. The publicly owned Koko Head Regional Park, which includes Hanauma Bay Beach Park and Sandy Beach Park, should continue to provide world-class recreational opportunities, but at the same time the value of these resources must be protected from overuse. Visual resources of the Queen's Beach and Queen's Rise sections should also be protected through creation of the proposed Ka Iwi scenic shoreline.



Figure 2-4: Koko Head - Makapuu Viewshed





### **2.2.3 MAINTAIN THE URBAN FORM OF RIDGE-AND-VALLEY NEIGHBORHOODS**

East Honolulu's residential communities are physically defined by the topography of the region. A series of ridges and valleys serve as natural boundaries separating one community from the next. The first areas to develop, in approximate order, were the coastal plains of Waialae and Wailupe and the flatter valley floors of Aina Haina, Kuliouou, and Niu. Over time, further subdivision into smaller lots, infill lot developments, and home expansions have intensified the use of these areas. Also, development has extended deeper into the valleys and up the lower slopes of valley walls.

Residential development of hillsides and descending ridges generally followed the development of the coastal plain and valleys. Most of the residential-zoned areas of these hillsides have been fully developed, but there is some vacant residential-zoned land remaining in upper and side slope fringes. Hawaii Kai, located in the eastern portion of the region, is a large, mixed-use master planned community containing a broad mix of housing types. It was inaugurated on a grand scale in the 1960s with the dredging of the coastal wetland for a marina, housing subdivisions, and apartment complexes. The master plan encompassed several geographic subareas: the Marina, Hahaione Valley, Mariner's Ridge, Kamilonui Valley, Kamiloiki Valley, Kamehame Ridge, Kalama Valley, and Queen's Beach. Most of these areas have been fully developed, except for Queen's Beach, which has been designated for preservation.

Kalaniana'ole Highway is the linkage between these hillside and valley neighborhoods. It is a major route for joggers and bicyclists, as well as vehicles, and its attractively landscaped median helps to unify the image of East Honolulu as a distinct region.

With most of Oahu's future population growth being directed to the Ewa and Central Oahu regions, no major developments are expected in East Honolulu. Growth in East Honolulu should occur by infilling existing built-up areas rather than spreading development onto steep slopes, higher elevations, undeveloped mountain ridges and valley walls, or deeper recesses of the valleys.

The character of existing neighborhoods must not only be protected, but also enhanced through effective design of public and private infrastructure and other community facilities. East Honolulu's existing communities may need to adapt facilities and services to accommodate the changing composition of the region's population (see Section 2.2.6).

### **2.2.4 EXPAND ACCESS TO RECREATIONAL AREAS**

The Koolau Mountain Range provides a wealth of hiking, hunting, and camping opportunities. It is important that access to publicly owned trails be made as unrestricted as possible. Communities, both open and gated, should cooperate with the State to ensure that visitor parking and access to trails are provided to the public. If these agreements do not work, consideration should be given to condemning land and acquiring public ownership of easements.

Shoreline access has been less problematic in East Honolulu. Existing beach access and rights-of-way should remain and new shoreline access ways should be acquired as the opportunities arise. In particular, at least three public access points should be acquired along Portlock Road in order to meet the City's standard of public shoreline access at approximately one-quarter mile intervals. Furthermore, access to the Queen's Beach shoreline, which extends from Koko Head Regional Park to Makapuu Point, should be improved through the creation of the proposed Ka Iwi scenic shoreline.



**2.2.5 PROTECT AND PRESERVE NATURAL AREAS**

Natural areas in East Honolulu include (see Chapter 3, **Figure 3-2**):

- Paiko Lagoon Wildlife Sanctuary;
- Ihiihilauakea Preserve;
- Hanauma Bay Marine Life Conservation District; and
- Queen's Beach (Ka Iwi scenic shoreline).

These natural areas should continue to be protected and preserved by providing proper management and security to protect endangered species habitat, and by monitoring and regulating uses to avoid overuse and misuse of resources. In addition, steps should be taken to acquire land for the creation of the Ka Iwi scenic shoreline (see Section 3.2.1.2) as a means to protect the area's rich recreational and scenic resources. Furthermore, the effects of runoff into these areas from any future upland construction will need to be thoroughly examined.

**2.2.6 ADAPT HOUSING SUPPLY TO CHANGING DEMOGRAPHICS**

East Honolulu should remain a relatively stable residential area, with only modest growth in housing stock or changes in household characteristics. In 1990, the owner occupancy rate for East Honolulu was approximately 79 percent compared to 49 percent for the island as a whole. Between 1995 and 2020, the population in East Honolulu is projected to increase by only about 6,000 residents. With minimal population growth, housing stability in East Honolulu will not be affected by rapid growth and new developments.

The composition of East Honolulu's population, however, could have an impact. East Honolulu has a significant and growing proportion of elderly residents. In 1990, 11.5 percent of the area's population was 65 years of age or older, an increase from 9.3 percent in 1980. This aging trend, however, is not consistent throughout the region. In the Kuliouou/Kalani Iki area, 17.0 percent of the 1990 population were in the 65 years old and over category. In comparison, only about 7.9 percent of Hawaii Kai residents belonged to this age group.

While this aging trend is consistent with the rest of the island - Oahu's proportion of elderly residents increased from 7.3 percent in 1980 to 10.9 percent in 1990 - the growth rate of East Honolulu's elderly population has outpaced that of Oahu as a whole. Between 1980 and 1990, the number of elderly residents in East Honolulu increased by 119.2 percent, compared to an islandwide elderly population growth of 65.2 percent. The aging population in East Honolulu and the island in general is expected to continue into the next century, indicating an increasing need for geriatric services, including long-term and care home services, and alternative living accommodations for seniors, such as retirement communities and group homes.

Despite an overall aging of the population, realtors specializing in this area have observed a trend of older couples or "empty nesters" moving out of single-family dwellings and younger families moving in. However, they have also observed an increase in "multigeneration" households; i.e., aging parents living with adult children and preschool or school-age grandchildren. These changing demographics may require different housing types and could result in changes to mature neighborhoods through the expansion of dwellings or the further addition of "ohana" units on a long-term basis. Zoning and other community guidelines will need to ensure that neighborhood character is not adversely altered by the incremental intensification of existing residential lots.



**2.2.7 FOCUS COMMERCIAL CENTERS ON SERVING THE REGION'S NEIGHBORHOODS**

East Honolulu's commercial areas should continue to be oriented primarily to the region's residential community. General Plan policy discourages major new employment growth in this region. Any significant retail and office expansion in this region would countervail the General Plan policy to direct job growth to the Primary Urban Center and Secondary Urban Center. Furthermore, given the small amount of population growth that is forecast for East Honolulu, there is expected to be only modest growth in the demand for commercial land uses to support the communities of this region.

The Hawaii Kai Towne Center, with over 200,000 square feet of gross leasable area, is East Honolulu's largest retail complex and includes "big box" stores that attract shoppers from outside the region. It is expected to maintain its role as the region's major commercial center. Its present floor area could be increased to accommodate more retail establishments to fulfill future demand without any expansion of land area.

The smaller Koko Marina Shopping Center serves a dual market, containing specialty stores and services oriented to both local residents and tourists, particularly visitors to Hanauma Bay. Since it is likely that the number of visitors to the scenic and recreation area between Koko Head and Makapuu Head will increase, the future tenant mix at Koko Marina may shift to visitor-oriented services.

East Honolulu's five other retail complexes, those at the community and neighborhood scale, are spaced at somewhat even intervals between Aina Haina and Kalama Valley. The market areas of the Aina Haina, Niu Valley, Hahaione Valley, Hawaii Kai, and Kalama Valley shopping centers are limited mostly to the communities for which they are named, emphasizing food and household products and personal services. None of these retail areas should require additional land area for expansion. Presently, the Kalama Village Center is underleased, primarily because it serves a very limited market area which is not expected to grow significantly. Consequently, the land presently planned for expansion of this commercial center should be redesignated for residential use.



## **Honolulu - Land Use**



### 3. LAND USE POLICIES, PRINCIPLES, AND GUIDELINES

The vision for development of East Honolulu described in the preceding chapter will be implemented through application of the following land use general policies, principles, and guidelines.

#### 3.1 OPEN SPACE PRESERVATION AND DEVELOPMENT

Open space preservation and development is a key element of the vision for East Honolulu's future. Long-term protection and preservation of scenic resources, natural areas, and recreational areas are important to maintaining the desirability and attractiveness of East Honolulu for both residents and visitors.

##### 3.1.1 GENERAL POLICIES

Open space will be used to:

- Protect scenic views and provide recreation;
- Promote access to shoreline and mountain areas;
- Define the boundaries of communities;
- Provide fire safety buffers where developed areas border "wildlands" either in preservation areas within the Urban Community Boundary or in the State Conservation District; and
- Create a linear system of landscaped pathways along roadways and drainage channels.

##### 3.1.2 PLANNING PRINCIPLES

The general policies listed above provide the basis for the following planning principles:

- ***Provide Passive and Active Open Spaces.*** The open space system shall consist of areas in both active and passive uses. Active areas include community-based parks, golf courses, and the Hawaii Kai Marina. Passive areas include lands in the State Conservation District, drainage and utility corridors, nature preserves, and tracts of lands left undeveloped because of physical constraints or hazards. Beach parks may be either active or passive, depending on the extent to which the landscape has been modified by grading and construction of facilities and the intensity of public use.
- ***Promote Accessibility of Recreational Open Space.*** Public parks and most golf courses will be accessible for recreation use, but the open space system should also promote the accessibility of shoreline and mountain areas (as required by City ordinance). Access to mountain trails and shoreline areas should be readily available. This also includes the need for parking areas.
- ***Enhance the Visual and Physical Definition of Urban Areas.*** East Honolulu's residential communities are physically defined by the topography of the region. A series of ridges and valleys linked by Kalanianaʻole Highway serve as unofficial boundaries separating one community from the next. Open space or landscaping, however, should be used to visually enhance the separation between communities, particularly along Kalanianaʻole Highway where ridgelines are less pronounced.



- ***Dual Use of Roadway and Drainage Corridors.*** Roadways should be attractively landscaped to serve as linear open space features and create a more inviting environment for walking, jogging and biking. Where physical modification of natural drainageways is necessary to provide adequate flood protection, such modifications should be designed and constructed to maintain habitat and aesthetic values, and to avoid degradation of stream, coastline, and near shore water quality.

### 3.1.3 GUIDELINES

The following provides a brief description of regional open space resources in East Honolulu, followed by guidelines for carrying out the general policies and planning principles related to each open space element.

#### 3.1.3.1 Mountain Areas

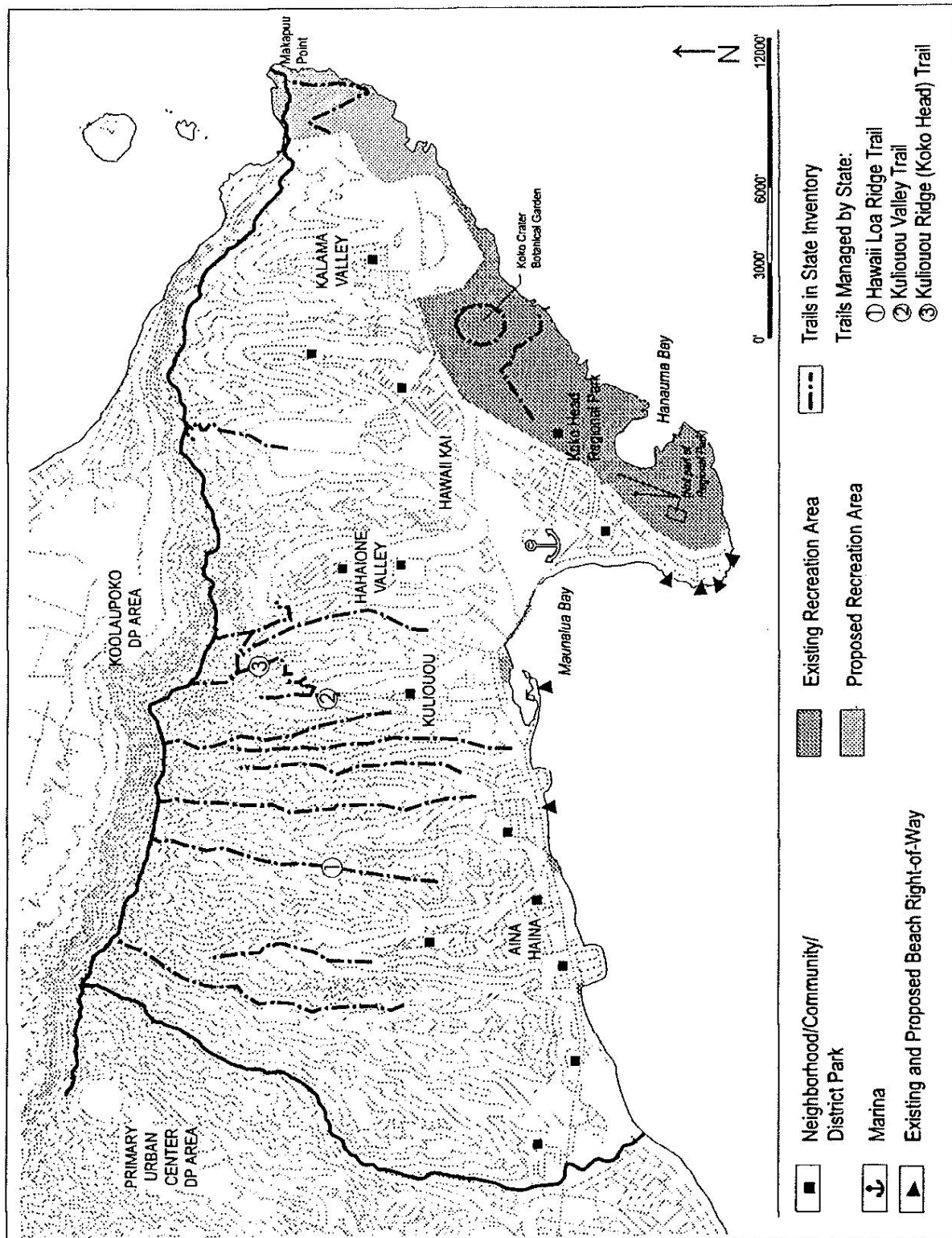
Seventeen major trails, inventoried by the State Department of Land and Natural Resources (DLNR), provide access to the mountainous areas of East Honolulu. Three of these trails (see **Figure 3-1**) are actively managed by the State's Na Ala Hele program:

- ***Hawaii Loa Ridge Trail.*** This trail begins at the top of the Hawaii Loa community and extends 2 miles to the crest of the Koolau Range.
- ***Kuliouou Valley Trail.*** Beginning at the back of Kuliouou Valley, this trail runs for 0.6 mile to approximately the 440 foot contour.
- ***Kuliouou Ridge (Koko Head) Trail.*** This 2.5-mile trail is an extension of the Kuliouou Valley trail, extending to the crest of the Koolaus.

Public access to the Hawaii Loa Ridge trail and the Wiliwilinui trail atop Waialae Iki has been a source of controversy because residents of these communities and large landowners are concerned about liability, security, and loss of privacy with the use of private roads by hikers and hunters. Consequently, hikers driving to the trails have been subjected to certain restrictions, including signing of waivers of liability, parking at the base of the ridge, or no access at all.



Figure 3-1: Public Parks and Recreation Areas





Mountainous regions in East Honolulu are in the State Conservation District and thus the State Board of Land and Natural Resources (BLNR) has the authority to decide what uses are allowed in these areas. To prevent future problems, landowners and residential associations should cooperate with the BLNR to ensure that access to the trails and visitor parking are provided to the public. If these agreements do not work, consideration should be given to acquiring fee ownership or easements for public use. Furthermore, the State and City should negotiate, in advance, provision of public access easements and visitor parking near the trailheads with developers of new subdivisions.

To protect important resource values in the State Conservation District, steps also need to be taken to control the number and range of feral animals and other alien species and prevent overuse and misuse by humans in selected areas, such as habitats of native and endangered species.

Guidelines pertaining to mountain areas are as follows:

- Acquire and maintain public access easements to trailheads.
- Provide public parking for trail users near the trailhead.
- Maintain, protect, and/or restore native forests in the State Conservation District.
- Avoid disturbances caused by utility corridors and other uses on areas with high concentrations of native species.
- Identify and protect endangered species habitats and other important ecological zones from threats such as fire, alien species, feral animals, and human activity.

### **3.1.3.2 Agricultural Areas**

The physical and economic conditions of East Honolulu preclude large-scale agricultural operations. There are, however, two concentrations of small-scale agricultural operations – the larger one in Kamilonui Valley and the other above Kaiser High School on the slopes of Koko Crater – which are expected to remain, and should be preserved as being consistent with the overall community vision underlying this Plan. In both areas, individual farm lots on long-term leases are used for nursery and vegetable production and remain commercially viable by serving a mostly East Honolulu market.

Water supply is sufficient in Kamilonui Valley, although short winter days are a limitation on the types of crops that can be grown here. There is also the potential for conflict between farming in Kamilonui Valley, an activity which existed prior to adjacent urban development, and the proximity and possible encroachment of suburban residential areas. This can result in complaints from neighbors about dust, noise, overspray, odors, and other normal effects of farming. In turn, this can lead to operational changes that may be required by the enforcement of public health regulations and that adversely affect the feasibility of agriculture. The most effective way to avoid this conflict is to provide adequate separation between agricultural and residential uses.

Guidelines relating to agricultural areas are listed below:

- Design and locate buildings and other facilities that are accessory to an agricultural operation in a way which minimizes the impact on nearby urban areas and the street system.



- Encourage continued use of small lots for agricultural uses and promote compatibility of nearby residential areas with those uses. Land use policy should explicitly promote maintenance of an adequate buffer between agricultural lands and new residential development with consideration given to topographic barriers, prevailing winds, and the noise or air-borne emissions associated with the type of agricultural operation.
- Designate undeveloped areas in Kamilonui Valley which are on the ewa side of the existing farm lots for agricultural use.
- Promote long-term agricultural leases at reasonable rates consistent with feasible agricultural use by having such areas remain outside the Urban Community Boundary and placing those areas within the Agriculture Boundary.

### **3.1.3.3 Natural Gulches and Drainageways**

The ridges and valleys in East Honolulu form a series of natural drainageways extending across the region. These stream channels are the primary means for carrying water from the inland areas to the sea and are capable of handling runoff from normal rainfall amounts. During periods of intense rainfall, however, a number of these drainageways have experienced flooding problems (see discussion in Chapter 4).

Guidelines concerning natural gulches and drainageways are as follows:

- Preserve the aesthetic and biological values of significant streams, wetlands, natural gulches, and other drainageways by providing appropriate setbacks as part of the open space system. These include the perennial streams identified in the Hawaii Stream Assessment prepared by the State Commission on Water Resource Management, wetlands identified by the Army Corps of Engineers and/or identified on the Fish and Wildlife Service's National Wetland Inventory maps, and other drainageways identified by the department of design and construction or the department of planning and permitting. For other streams, including intermittent streams, applicants for development should be required to show that the open space system will not be significantly impacted and that biological values will not be significantly impacted by not providing setbacks.
- Alter natural gulches within the Urban Community Boundary that are necessary to provide flood protection in a way which preserves aesthetic and biological values to the extent possible, and avoids degradation of stream, coastline and near shore water quality. For example, impacts on biological habitat may be mitigated, as appropriate, by using v-shaped bottom channels for periods of low stream flow, rip-rap boulder lining of stream banks, and streamside vegetation to shade and cool the waters of the stream.

### **3.1.3.4 Community-Based Parks**

There are approximately 117 acres of community-based parks in East Honolulu. As discussed further in Section 3.3, community-based parks include district, community, neighborhood, and mini parks. The main purpose of community-based parks is to provide active recreation space for residents of the region in the form of playfields and gyms, among others. In addition to meeting the active recreation needs of the region, community-based parks also serve as open space elements and add aesthetic value to the region by providing visual relief from urban land uses.

Guidelines pertaining to community-based parks in East Honolulu are as follows:



- Expand community-based parks in areas where there is a deficit of such facilities and where recreational needs of residents are not being adequately met.
- Design and site structural improvements and landscaping in community-based parks in such a way as to create or add to the aesthetic value of these open space elements.

### 3.1.3.5 Golf Courses

There are three 18-hole golf courses in East Honolulu; the Hawaii Kai Championship Golf Course, the Hawaii Kai Executive Golf Course, and the Waialae Country Club. No additional golf courses are proposed under this Plan. The first two courses are open to the public, while the latter is a members-only course. The three golf courses are important elements of East Honolulu's open space system because they provide areas for active recreation and offer visual relief from adjacent urban uses. Golf courses have a manicured appearance, so they are not necessarily appropriate for areas where the retention of a natural, untamed landscape character is desired. However, the Waialae Country Club demonstrates how a golf course in an urban or suburban setting can preserve a significant viewplane, in this case the mauka-to-makai vista from Kalaniana'ole Highway. The two Hawaii Kai golf courses demarcate the eastern edge of suburban development and help preserve the mauka portion of the panoramic view from Koko Crater to Makapuu Head. In addition to their open space value at strategic locations, the design and siting of golf course grading contours and water features can contribute in a significant way to a passive stormwater drainage management system in an urban context.

Guidelines relating to golf courses in East Honolulu are listed below:

- Maintain golf course designs to provide view amenities for adjacent urban areas, especially from well-used public rights-of-way, parks, and vista points.
- Optimize the function of golf courses as passive drainageways, maximizing their potential to retain or detain stormwater runoff.
- Provide safe access through golf courses, as necessary, for regional continuity of pedestrian and bicycle systems.
- When necessary for safety reasons, use screening, landscape treatment, setbacks, and modifications to the course layout rather than fencing or solid barriers.

### 3.1.3.6 Shoreline Areas

East Honolulu's shoreline extends for approximately 13 miles between Waialae and Makapuu. The shoreline provides residents and visitors with significant active and passive recreational value. Thus, public access, both mauka-makai and lateral, should be maintained and improved to the extent possible. In addition to recreational value, shoreline areas in East Honolulu, particularly between Koko Head and Makapuu, offer unparalleled scenic value. As such, view channels from Kalaniana'ole Highway to the shoreline should be maintained. The shoreline from Waialae to Koko Head and from Koko Head to Makapuu is discussed below.

- ***Waialae to Koko Head.*** Few areas along this shoreline are accessible to the public due to residential development along Kalaniana'ole Highway. Access points to the shoreline along this stretch include the Wailupe, Kawaikui, Kuliouou, and Maunalua Bay Beach Parks and a few mauka-makai pedestrian easements.



Physical and visual access to the shoreline along this stretch is limited because of rather continuous residential development and the erection of sound barrier walls to screen traffic noise. However, there are a few points where the acquisition of additional pedestrian easements to the shoreline may still be possible as properties are redeveloped or subdivided.

In the residential area near Koko Head, there is a deficiency of public access to the shoreline from Portlock Road. To meet the City standard of public access at approximately 1/4 mile intervals, at least three additional public access points would need to be acquired along this road; two at either end and one in the middle. Where possible, these acquisitions should provide for direct, safe public access to sandy shoreline areas.

Most of the shoreline in this section is stable. Vertical seawalls and revetments have been constructed along many of the properties, but chronic erosion or accretion appears to be occurring only in two locations – at Paiko Peninsula and in the Portlock area between the Hawaii Kai Marina entrance channel and the former Henry Kaiser Estate. Additional minimum setbacks for structures have been recommended as a management strategy to protect remaining sandy beaches in these segments.<sup>2</sup>

It is also important in this area to retain and, if possible, expand visual access to the shoreline from the coastal highway. Presently, the most significant makai views are from the H-1 Freeway viaduct looking across the Waialae Country Club golf course and from Kalanianaʻole Highway fronting the Wailupe, Kawaikui, and Maunalua Bay Beach Parks.

- ***Koko Head to Makapuu.*** Mauka-makai and lateral shoreline access is more prevalent between Koko Head and Makapuu. This stretch of shoreline is frequented by residents and visitors for various recreational and educational activities. The portion of this shoreline that extends from Koko Head Regional Park to Makapuu Point has been proposed as a 354-acre scenic shoreline area (see Section 3.2.1.2). The purpose of this park, referred to as the Ka Iwi scenic shoreline, is to preserve the area's natural and scenic resources and to provide educational and passive recreation opportunities. In addition to shoreline access, there are continuous views of the ocean from the stretch of Kalanianaʻole Highway between Koko Head and Makapuu. This segment of the roadway is the highlight of a continuous visual sequence of the coastline extending from Hawaii Kai to Waimanalo.

Guidelines pertaining to shoreline areas are listed below:

- Maintain existing makai view channels along the H-1 Freeway or Kalanianaʻole Highway between Waialae and Koko Head. Avoid obstructions, such as walls and landscaping, designed to screen out traffic noise.
- Lateral shoreline access along some reaches of the beach from Maunalua Bay to Waialae Beach Park is a desirable goal, but difficult to achieve because of physical constraints, land ownership patterns and the extent of urban development. As an alternative, pursue opportunities to acquire additional pedestrian rights-of-way from the highway to the shoreline in sections which have high recreational value but no similar public access within at least a 1/4 of a mile.
- Provide additional public access to the shoreline from Portlock Road at approximately 1/4 mile intervals.

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<sup>2</sup> Sea Engineering, Inc., for the Department of Planning and Permitting. Oahu Shoreline Study; Part 2: Management Strategies (1989).



- Require additional minimum setbacks for structures near the shoreline and implement other management strategies to protect unstable sandy beach areas at Paiko Peninsula and Portlock.
- Place high priority on maintaining the untamed landscape quality of the Koko Head to Makapuu viewshed. Any modification to this shoreline area should be done in a manner which preserves the aesthetic values of the undeveloped xerophytic landscape.
- Protect and preserve the long-term recreational and scenic value of the shoreline between Koko Head and Makapuu by supporting the creation of the Ka Iwi scenic shoreline.

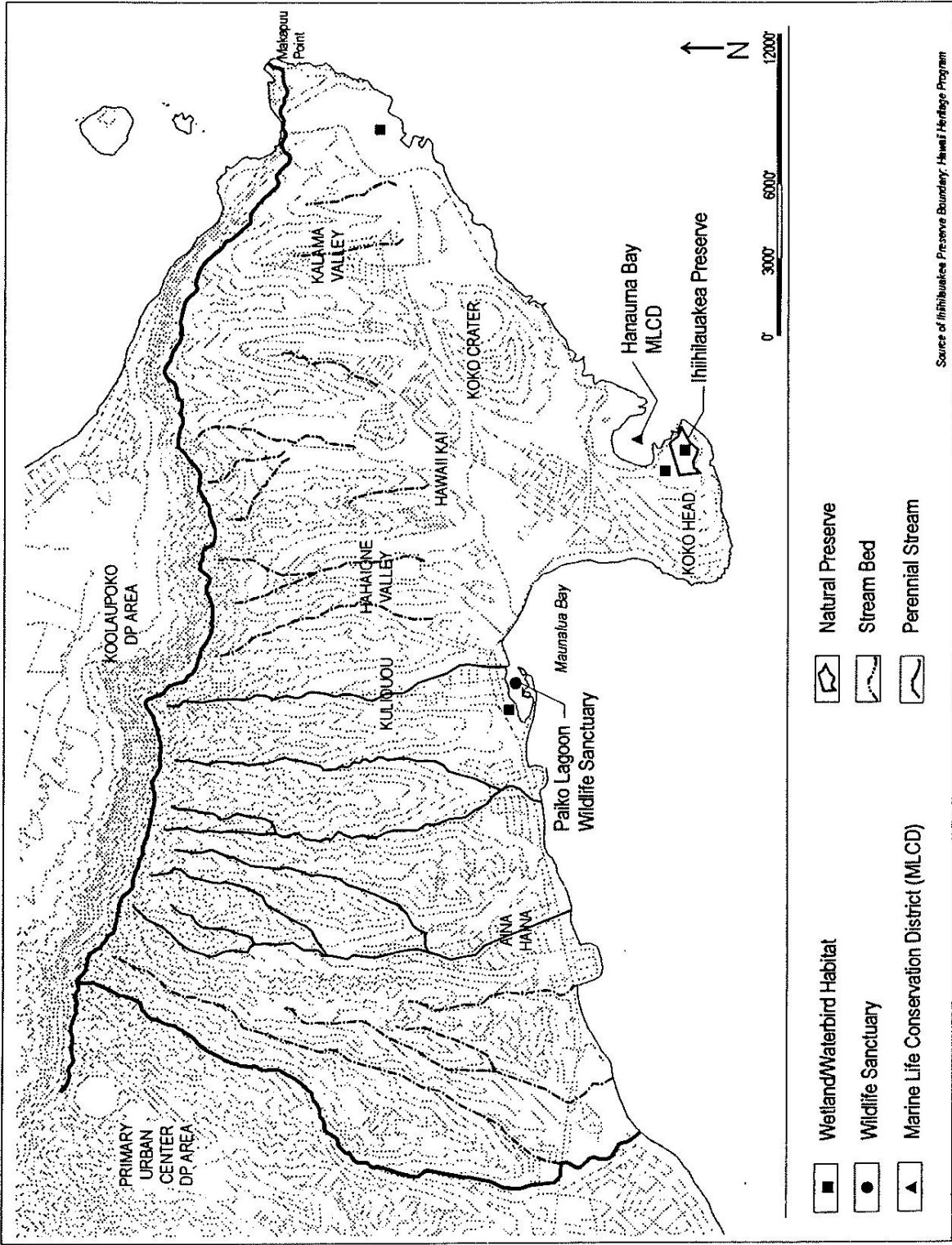
### 3.1.3.7 Wildlife Preserves

East Honolulu is home to three formal wildlife preserves (see **Figure 3-2**):

- ***Paiko Lagoon Wildlife Sanctuary.*** Paiko Lagoon, formerly a coastal fishpond, is fed by a freshwater spring and Kuliouou Stream and is managed by the State department of land and natural resources. The lagoon's water level varies with the tides and occasionally exposes the saline mudflats. This wildlife sanctuary provides habitat to the endangered Hawaiian Stilt as well as other migratory waterbirds. The proximity of residential uses may threaten the sanctuary due to intrusions by humans and domesticated animals.
- ***Ihihilauakea Preserve.*** This preserve is located on the southern rim of the Hanauma Bay ridgeline on land owned by the City and County of Honolulu, and is managed by the Nature Conservancy of Hawaii (NCH) through a cooperative agreement with the City. This preserve maintains a pool for the endangered Ihihi (*Marsilea villosa*), an ephemeral plant appearing only during periods of rainfall.
- ***Hanauma Bay Marine Life Conservation District (MLCD).*** Established in 1967 by the Department of Land and Natural Resources, the Hanauma Bay MLCD was once a popular site for fishing and throw netting. Wildlife within Hanauma Bay is now protected by State law. The adjoining beach park is part of Koko Head Regional Park, administered by the City. In order to protect the marine resources of this popular visitor destination, the City restricts the daily number of visitors that have access to the bay, closes the beach on Wednesday mornings, and bans smoking at the bay. The City also collects entry and parking fees used to fund maintenance and capital projects at Hanauma Bay.



Figure 3-2: Natural Areas





Guidelines relating to wildlife preserves in East Honolulu are as follows:

- Avoid encroachment or intensification of residential or other urban uses near wildlife sanctuaries. In particular, there should be no reduction in preservation zoning in the vicinity of the Paiko Lagoon Wildlife Sanctuary or intensification of residential use in this zone. Provided, however, that any property with an existing residential use shall be designated for low-density residential use and may be zoned to an appropriate residential zone.
- Implement management programs in areas where intense human activity threatens the sustainability of the resources, such as at Hanauma Bay. This could include, for example, monitoring studies, limits on the number of visitors, and admission fees.

### 3.1.3.8 Marina

The 260-acre Hawaii Kai Marina provides protected water for small sail and motor craft, water skiing, and fishing. Residences fronting the marina have launching ramps and mooring facilities. In addition, there are boating facilities adjacent to the Koko Marina Shopping Center that can accommodate boats up to 40 feet in length. The Hawaii Kai Marina also serves as the focal point for commercial activity in Hawaii Kai. East Honolulu's three largest commercial centers, the Hawaii Kai Towne Center, Hawaii Kai Shopping Center, and Koko Marina Shopping Center, front the marina on the east and west sides. The Hawaii Kai Marina contributes to the open space system by providing recreational value and visual relief from adjacent urban uses. It also has a cooling effect and thus offers climatic benefits for commercial and residential uses that front the water.

Guidelines concerning the Hawaii Kai Marina are listed below:

- Enhance the recreational value of this open space feature by improving facilities in support of boating and providing additional pedestrian access to the edges, and to the extent possible, around the commercial frontages of the marina by way of a pedestrian and bike path.
- Link the Hawaii Kai Towne Center and the Hawaii Kai Shopping Center with a pedestrian bridge in order to provide convenient access between the two commercial centers.
- Improve pedestrian access to and along the marina's edge. The marina should not be a barrier for those, particularly pedestrians, desiring to visit more than one destination along the waterfront. A shuttle boat transport service should be considered as a means of transporting people across the marina and providing them with easy and convenient access to various waterfront locations.

### 3.1.4 RELATIONSHIP TO MAP A-1, OPEN SPACE

The following components of the regional open space system are shown on Map A-1, Open Space in Appendix A:

- ***Mountain and Agricultural Areas.*** These areas are to remain outside of the designated Urban Community Boundary.
- ***Parks.*** Areas designated as island-based and district parks are shown, as well as the general location of community and neighborhood parks. Additions to the community-based park system are determined more by community facility design considerations (see Section 3.3 below) than by their relationship to the regional open space network.



- **Golf Courses.** The three golf courses in East Honolulu are shown because of their recreational value and visual contribution to the landscape.
- **Shoreline Areas.** Shoreline areas with high scenic or wildlife value, primarily in the Koko Head to Makapuu region and at Paiko Peninsula, are designated for preservation and are located outside the Urban Community Boundary.
- **Hazard Areas.** Certain undeveloped lands within the State Urban District that have either experienced significant damage from soil movement or are highly susceptible to such problems, particularly in Aina Koa, Aina Haina, and Kuliouou, are located outside the Urban Community Boundary and designated for preservation.
- **Marina.** Hawaii Kai Marina is located within the Urban Community Boundary.

## 3.2 ISLAND-BASED PARKS AND RECREATIONAL AREAS

This section presents an overview of island-based parks and recreational areas in East Honolulu. This is followed by general policies, planning principles, and guidelines for development of these resources. The location of the region's island-based parks and recreational areas are shown on Map A-1, Open Space; A-2, Urban Land Use; and Map A-3, Public Facilities in Appendix A.

### 3.2.1 OVERVIEW

The City and County of Honolulu Department of Parks and Recreation (DPR) develops and maintains a system of park and recreation facilities which it classifies in a hierarchical manner. The largest and most specialized parks are classified as island-based parks since they serve the needs of all Oahu residents. This group includes regional parks, beach/shoreline parks, beach/shoreline right-of-ways, nature parks/reserves, botanical gardens, golf courses, and zoological parks (see **Table 3-1**). DPR's standard for island-based parks is 8 acres for every 1,000 persons. The location of public parks and recreation areas in East Honolulu were shown previously in **Figure 3-1**.

**Table 3-1**

**Types of DPR Island-Based Parks**

Regional Parks	Large areas that may serve the entire island or a region of the island and may include a variety of recreation park types and facilities, natural and cultural sites.
Beach/Shoreline Parks	Areas and sites along the shoreline that may include facilities and support services for water activities, sunbathing, picnicking, and other passive activities.
Beach/Shoreline Rights-of-Way	Access lanes to beaches and the shoreline where residential or other uses prevent development of a beach/shoreline park.
Nature Parks/Reserve	Areas maintained primarily to preserve or conserve unique natural features.
Botanical Gardens	Areas developed for the recreational and educational appreciation of specific types of plants and plant communities.



As shown in **Table 3-2**, East Honolulu contains eight island-based parks that are maintained by the DPR. A brief description of East Honolulu's regional parks, various beach parks, and three privately operated golf courses is provided below.

<b>Table 3-2</b>	
<b>DPR Island-Based Parks in East Honolulu</b>	
<b>Park Type/Name</b>	<b>Acreage</b>
<b>Regional Parks</b>	
Koko Head Regional Park	951.4 <sup>1</sup>
<b>Beach/Shoreline Parks</b>	
Maunalua Bay Beach Park	5.4
Sandy Beach Park	22.6
Kawaikui Beach Park	4.1
Kuliouou Beach Park	3.2
Waialae Beach Park	4.4
Wailupe Beach Park	<u>1.2</u>
Subtotal	41.0
<b>Nature Parks/Reserves</b>	
Hanauma Bay Nature Park	50.0
<b>Botanical Gardens</b>	
Koko Crater Botanical Garden	200.0
<b>Total</b>	<b>1,242.3</b>

<sup>1</sup> Acreage figure excludes Sandy Beach Park, Hanauma Bay Nature Park, Koko Crater Botanical Garden (listed separately) and Koko Head District Park (included in Section 3.3).

### 3.2.1.1 Koko Head Regional Park

The 1,264-acre Koko Head Regional Park encompasses the most popular recreation areas in East Honolulu, including:

- Halona Blowhole Lookout
- Koko Crater Stables
- Koko Head Rifle Range



- Sandy Beach Park
- Hanauma Bay Nature Park
- Koko Crater Botanical Garden
- Hawaii Job Corps Center (discussed in Section 3.3)
- Koko Head District Park (discussed in Section 3.3)

The park was established in 1928 when the City acquired the property from the Estate of Bernice Pauahi Bishop for a fee of \$1.00. In exchange for the nominal charge, the City agreed to extend and maintain the municipal water system through Maunalua. Further, the deed stipulated that use of the property be restricted to public parks or right-of-ways. Other uses of the property would require approval by the Bishop Estate Trustees.<sup>3</sup>

In 1992, the Koko Head Park Master Plan was completed. The report contains elements regarding the preservation and enhancement of the park's recreational and educational resources which are generally consistent with the guidelines set forth in this Development Plan (discussed in Section 3.2.4).

Expansion of Koko Head Regional Park is proposed with the addition of the Golf Course 5 and 6 properties, located mauka of Sandy Beach and Kalanianaʻole Highway. The 38-acre park will link the existing Koko Head Regional Park and the proposed Ka Iwi scenic shoreline and will provide a continuous stretch of open space and recreational opportunities extending from Koko Head to Makapuu Head. This area is planned for active recreation use with playfields and open space for kite flying and other outdoor activities. There will be no courts or paved areas, and a generous naturally landscaped buffer fronting Kalanianaʻole Highway will be needed to retain compatible character with the adjacent Ka Iwi scenic shoreline.

#### **3.2.1.2 Ka Iwi Scenic Shoreline**

A 354-acre scenic shoreline area is proposed in the Queen's Beach/Makapuu Head region of East Honolulu adjacent to Koko Head Regional Park. The Ka Iwi scenic shoreline, as it is referred to, is envisioned as a means to protect the area's rich recreational and scenic resources. A master plan for the park was prepared in October 1995 by the State department of land and natural resources pursuant to House Concurrent Resolution No. 261 (1988).

A mix of low and medium intensity uses is envisioned at the proposed Ka Iwi scenic shoreline. The primary purpose of the park should be to preserve the area's natural resources and to provide educational and passive recreation opportunities.

#### **3.2.1.3 Beach and Shoreline Parks**

East Honolulu's five existing beach parks are Maunalua Bay, Sandy Beach, Kawaikui, Kuliouou, Waialae and Wailupe. Hanauma Bay is designated by the DPR as a Nature Park. The DPR has no current plans for additional beach park development in East Honolulu. As mentioned above, the Ka Iwi scenic shoreline is proposed for the Queen's Beach/Makapuu Point region of East Honolulu.

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<sup>3</sup> Belt Collins & Associates. Koko Head Park Master Plan (January 1992), p. 1.



### 3.2.1.4 Golf Courses

All three golf courses in East Honolulu are privately owned. The Hawaii Kai Championship Golf Course and the Hawaii Kai Executive Golf Course offer public play and the Waialae Country Club is a members-only course. Golf courses are considered valuable open space and aesthetic resources and also serve a practical purpose by reducing flooding and nonpoint pollution by helping retain stormwaters. However, they are highly land intensive, typically occupying 150 to 200 acres, and thus plans for future golf courses should undergo careful evaluation. Depending on the location, design, and pricing of green fees or both memberships, new course development could have significant environmental, economic, and social impacts. Furthermore, East Honolulu is mostly built-out and land areas that could possibly accommodate a new golf course are either in preservation or long-term agricultural use. This Plan does not envision development of additional golf courses in the East Honolulu region.

### 3.2.2 GENERAL POLICIES

The following general policies relate to island-based parks and recreational resources in East Honolulu:

- Increase the inventory of island-based parks, where feasible and supportive of open space general policies and principles, by expanding the boundaries of existing parks and/or creating new parks.
- Maintain and enhance, to the extent possible, existing island-based parks by utilizing land area that has not been fully developed for recreation use. Island-based parks are part of the region's abundance of natural and scenic resources and contribute to the attractiveness of East Honolulu to both residents and visitors.

### 3.2.3 PLANNING PRINCIPLES

The general policies for island-based parks and recreation complexes are supported by the following planning principles:

- ***Appropriate Screening and Siting.*** Carefully site active playfields and supporting facilities intended for intensive use, and use generous landscape screening to reduce the potential impacts on surrounding areas.
- ***Environmental Compatibility.*** Construct park facilities in a manner which avoids adverse impacts on natural resources or processes in the coastal zone or any other environmentally sensitive area. In the design of recreation areas, incorporate natural features of the site and use landscape materials that are indigenous to the area where feasible in order to retain a sense of place.
- ***Community Integration.*** Link recreational attractions, that may be designed to have distinct identities and entries, with surrounding areas through the use of connecting roadways, bikeways, walkways, landscape features and/or architectural design.

### 3.2.4 GUIDELINES

The following guidelines implement the general policies and planning principles for the island-based parks and recreation areas listed above.



**3.2.4.1 Passive or Nature Parks**

- Preserve and enhance Koko Head Regional Park’s coastal-oriented recreational and educational resources by implementing when funding is available, the following:
  - Convert the portion of Kalanianaʻole Highway between Lunalilo Home Road and Sandy Beach to a 25-mile-per-hour scenic roadway.
  - Maintain and facilitate access to the area’s important fishing resources.
  - Develop new trails in and around Koko Crater.
  - Minimize adverse lighting impacts to aquatic life and avifauna, as well as adverse aesthetic impacts.
  - Maintain Koko Crater Botanical Garden with drought-tolerant plant species.
- Develop Ka Iwi scenic shoreline in a manner which preserves the area’s natural scenic quality and provides educational and passive recreation opportunities.
- Protect fragile natural resources, such as the wildlife at Hanauma Bay Nature Park, from overuse through some form of management control.

**3.2.4.2 Active Recreation Areas**

- Expand the Koko Head Regional Park boundary to include Golf Course 5 and 6 properties, thereby increasing East Honolulu’s active recreation areas.
- Locate areas designed for sporting events that attract high numbers of people along major collector streets or accesses that are separated as much as possible from residential areas and wildlife habitats.
- Minimize the visibility of perimeter fencing along major collector streets, large recreation buildings or structures, lighting, parking lots and other utilitarian elements through plantings or other appropriate visual screens adjacent to residential areas and major roadways, particularly to soften the view of the park from above at the roadside vista point along Kalanianaʻole Highway.
- Locate bus stops and loading areas at principal entries and adjacent to convenient pedestrian accesses to main activity areas within the park.
- Provide amenities and service facilities to accommodate “tailgate” picnics in parking areas for sporting events, including shading canopy trees within the parking lot as well as nearby picnic tables and outdoor grills.

**3.3 COMMUNITY-BASED PARKS**

Sections 3.3.1, 3.3.2, and 3.3.3 provide an overview and a list of general policies and guidelines pertaining to community-based parks and recreation areas.



### 3.3.1 OVERVIEW

Park areas that serve more localized populations are classified as community-based parks. This group includes district, community, and neighborhood parks as well as other, smaller park areas (see **Table 3-3**).

**Table 3-3**

**Types of DPR Community-Based Parks**

Park Type	Average Size (Acres)	Population Service Size	Typical Facilities
District	20	25,000	Playfields, playcourts, passive areas, gym/recreation complex, swimming pool
Community	10	10,000	Playfields, playcourts, passive areas, recreation building
Neighborhood	6	5,000	Playfields, playcourts, passive areas, comfort station
Mini Park	Varies	High Density Area	Benches, picnic tables, children's play area

East Honolulu contains a total of approximately 120 acres of community-based parks of which the largest is the 40-acre Koko Head District Park (see **Table 3-4**). Expansion of the park to 59 acres is proposed by incorporating the adjacent Job Corps site. In East Honolulu, this is the most appropriate location for sports and active recreation facilities designed for league play and other major sporting events. This complex should also include passive use areas for quiet enjoyment and nature learning activities. These areas can serve as buffers from adjacent residential areas or from natural features, such as the slopes of Koko Crater. In evaluating community-based recreational park needs, the DPR uses a standard of two acres per every 1,000 persons, although this figure varies according to each community's situation. Based on this population standard and East Honolulu's 1990 population of 45,650, there is a surplus of approximately 26 acres of community-based parks in the region. There is only one District Park in the region, while DPR's population service ratio (see Table 3-3) would suggest the need for two such parks in East Honolulu. However, the land area for Koko Head District Park is twice as large as DPR's standard for District Parks. Moreover, as mentioned earlier, this park can be expanded to 59 acres by incorporating the adjacent Job Corps site.

**Table 3-4**

**DPR Community-Based Parks in East Honolulu**

Park Type/Name	Acreage
<b>District Parks</b>	
Koko Head District Park	40.0
<b>Community Parks</b>	
Kalama Valley Community Park	6.0
Kamilo Iki Community Park	18.5
Aina Haina Community Park	<u>6.2</u>
Subtotal	30.7



Table 3-4

**DPR Community-Based Parks in East Honolulu**

<b>Park Type/Name</b>	<b>Acreage</b>
<b>Neighborhood Parks</b>	
Aina Koa Neighborhood Park	2.4
Hahaione Neighborhood Park	4.1
Hahaione Valley Neighborhood Park	6.2
Kamilo Iki Neighborhood Park	7.2
Koko Head Neighborhood Park	6.8
Kuliouou Neighborhood Park	4.4
Nehu Neighborhood Park	1.3
Niu Valley Neighborhood Park	2.1
Waialae Iki Neighborhood Park	9.9
Wailupe Valley Neighborhood Park	<u>2.5</u>
Subtotal	46.8
<b>Mini Parks</b>	
Koko Kai Park	0.6
Kamole Mini Park	2.2
Kokee Park	<u>0.5</u>
Subtotal	3.3
<b>Total</b>	<b>120.8</b>

As suggested in the discussion of Koko Head District Park, the distribution of community-based park lands within East Honolulu is slightly uneven. The Hawaii Kai Neighborhood Board area, with a 1990 population of 27,430, has a surplus of approximately 34 acres of community-based parks, while the Kuliouou-Kalani Iki Neighborhood Board area has a deficit of approximately 6 acres.<sup>4</sup>

However, as mentioned above, population is not the only factor to consider when evaluating community-based park needs. Other factors, such as the demographic composition and maturity of a neighborhood, should also be taken

<sup>4</sup> Neighborhood Board boundaries do not exactly match boundaries used by the U.S. Census Bureau. For purposes of calculating park requirements, the balance of East Honolulu's population not in the Hawaii Kai neighborhood board area was allocated to the Kuliouou-Kalani Iki neighborhood board area.



into account. In East Honolulu, the Kuliouou-Kalani Iki Neighborhood Board area has a higher share of residents over the age of 65, an older housing stock, and fewer households with related children compared to the Hawaii Kai Neighborhood Board area. As such, the Kuliouou-Kalani Iki community does not currently have strong demand for park facilities such as children's play areas.

Over time, the composition of the Kuliouou-Kalani Iki community may change as the housing owned by elderly residents is gradually turned over to younger households. There may also be an increase in "multi-generation" households (i.e., aging parents living with adult children and preschool or school-age grandchildren) as children of elderly residents either move in to care for their aging parents or are unable to live on their own due to economic pressures and high housing costs. These trends may play an important role in the life cycle of the Kuliouou-Kalani Iki community and may increase the requirements, by amount and type, for active recreation facilities over time.

DPR has no current plans to acquire additional land for community-based park development in the region. Any new park areas would thus be provided pursuant to the Park Dedication Ordinance in conjunction with private developments. Expansion of community-based park lands is possible in Hawaii Kai, but is limited in the Kuliouou-Kalani Iki Neighborhood Board area by the lack of available land. However, there are opportunities to expand the availability of recreational facilities oriented to a younger population in the Kuliouou-Kalani Iki area, by jointly, with the Department of Education (DOE), using and improving elementary and intermediate school recreational facilities as community-based parks.

### **3.3.2 GENERAL POLICIES**

General policies pertaining to community-based parks are as follows:

- Increase the inventory of community-based parks, when feasible, to provide sports and recreation facilities for East Honolulu residents in appropriate locations.
- Modify recreation facilities in existing parks and increase access to public school facilities in areas where there is limited opportunity to expand park space to respond to changing demographic profiles or recreational needs.
- Have new residential development provide land for open and recreation purposes in lieu of payment of a fee for park dedication purposes, if the project is of sufficient size to set aside usable land to meet neighborhood recreational needs.

### **3.3.3 GUIDELINES**

The following guidelines implement the general policies and planning principles for community-based parks:

- Expand active recreational facilities at Koko Head District Park by incorporating and developing the adjacent Job Corps site.
- Have master plans for development of new parks or redevelopment of existing parks provide for facilities and accessible pathways from surrounding streets to facilitate pedestrian and bicycle access to parks.
- Continue DPR and DOE efforts to co-locate neighborhood or community parks with elementary or intermediate schools. The DPR should also explore ways, through cooperative agreements and mutual



indemnifications with the DOE, to design and operate facilities to achieve efficiencies and reduce duplication in the development and use of athletic, recreation, meeting, and parking facilities.

### 3.4 HISTORIC AND CULTURAL RESOURCES

Sections 3.4.1, 3.4.2, 3.4.3, and 3.4.4 provide an overview and a listing of policies, planning principles, and guidelines for the preservation of historic and cultural resources in East Honolulu.

#### 3.4.1 OVERVIEW

In 1930, an archaeological survey of Oahu documented approximately 60 sites in the area now defined as East Honolulu.<sup>5</sup> Many of these sites, however, have since been destroyed by the 1946 tsunami, erosion, or other land altering activities such as beach development and construction. Within the Koko Head Regional Park, for example, a survey conducted in 1988 relocated only one of five sites identified in the 1930 study. This site, the Koko Head Petroglyphs, was discovered in 1899 and is situated near the Lanai Lookout. The petroglyphs have been extensively altered by erosion and vandals since the 1930 survey, but nevertheless remain significant examples of petroglyph art.

Similarly, in the Queen's Beach area, approximately 20 sites were documented in the 1930 survey. The features included fishing shrines, house platforms, and a habitation cave. Although survey work done in 1984 found none of these sites, the large quantity of sites recorded earlier makes it likely that subsurface cultural deposits and scattered human burials remain in the areas within and surrounding Koko Head Regional Park.

West of Koko Head, the number of archaeological sites lessens. Sites in this portion of East Honolulu consist of shelters, heiau, and burial caves. Makaniolu Shelter in Kuliouou is on the Hawaii Register of Historic Places, the only such registered site in East Honolulu.<sup>6</sup> Makaniolu is a large cave in good condition and is a good representative of its class.

**Table 3-5** lists the significant cultural and historic sites believed to be present in East Honolulu. Although not listed in the table, there are also archaeological sites on undeveloped parcels located deep within the region's valleys. These areas have not been impacted by the tsunami of 1946 or by previous development activity. Some of these areas, however, have been subject to intensive agricultural use in the past.

For example, a recent privately initiated pedestrian survey of surface and possible subsurface material remains was conducted on a parcel located in Kamilonui Valley near the planned extension of Hawaii Kai Drive.<sup>7</sup> Three archaeological sites were identified: a single, isolated rock pile feature; a small bedrock cavity containing a human molar; and a historic wall which was probably a remnant of a larger complex. Of these sites, only the bedrock cavity was recommended for in situ preservation.

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<sup>5</sup> McAllister, J. Gilbert. Archaeology of Oahu. (1933), p. 57.

<sup>6</sup> The U.S. Coast Guard Makapuu Point Lighthouse, also in East Honolulu, is on the National Register of Historic Places.

<sup>7</sup> Kusao & Kurahashi, Inc. Rezoning Application Report, Proposed Kamilonui 1 Development (August 1997), p.43-51.



**Table 3-5****Significant Cultural and Historic Sites in East Honolulu**

<b>Feature</b>	<b>Reference</b>
Makapuu Point Lighthouse	
Kealakupapa Valley Road	McAllister Site 3; SHPD 3
Kaloko Dwelling Site	SHPD 3997
Kailiili Midden Site	SHPD 3990
Koko Head Petroglyphs	McAllister Site 44; SHPD 1128
Makapuu Head Cave	SHPD 3989
Makaniolu Shelter (Kuliouou)	
Burial Caves (Niu)	McAllister Site 53

Source: McAllister, J. Gilbert, Archaeology of Oahu (1933);  
 Sterling E.P. and C.C. Summers, Sites of Oahu (1978).

**3.4.2 GENERAL POLICIES**

- Emphasize physical references to East Honolulu's history and cultural roots.
- Protect existing visual landmarks and support the creation of new, culturally appropriate landmarks.
- Preserve significant historic features from earlier periods.
- Retain, whenever possible, significant vistas associated with archaeological features.

**3.4.3 PLANNING PRINCIPLES**

The treatment of a particular historic or cultural site should depend upon its characteristics and potential value. The following planning principles should be used to determine appropriate treatment:

- ***Preservation and Protection.*** Recommend in situ preservation and appropriate protection measures for sites that have high preservation value because of their good condition or unique features.
- ***Compatible Setting.*** Determine the appropriate treatment for a historic site by the particular qualities of the site and its relationship to its physical surroundings. The context of a historic site is usually a significant part of its value, and care should be taken in the planning and design of adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site.
- ***Accessibility.*** Determine the degree of access that would best promote the preservation of the historic, cultural and educational value of the site, recognizing that economic use is sometimes the only feasible



way to preserve a site. Public access to a historic site can take many forms, from direct physical contact and use to limited visual contact. In some cases, however, it may be highly advisable to restrict access to protect the physical integrity or sacred value of the site.

#### **3.4.4 GUIDELINES**

The following guidelines apply to Native Hawaiian cultural and archaeological sites and implement the general policies and planning principles listed above:

- Require preservation in situ only for those features which the State Historic Preservation Officer has recommended such treatment.
- Determine the appropriate preservation methods on a site-by-site basis in consultation with the State Historic Preservation Officer.
- Determine appropriate delineation of site boundaries and setbacks and restrictions for adjacent uses on a site-by-site basis in consultation with the State Historic Preservation Officer.
- Include sight lines that are significant to the original purpose and value of the site in criteria for adjacent use restrictions.
- Determine the appropriateness of public access on a site-by-site basis in consultation with the State Historic Preservation Officer, Hawaiian cultural organizations, and the owner of the land on which the site is located.

### **3.5 RESIDENTIAL USE**

An overview of residential development in East Honolulu is presented below. This is followed by a description of general policies and guidelines, which are to be applied to existing and planned residential developments.

#### **3.5.1 OVERVIEW**

With the establishment of Urban Community, Agriculture and Preservation Boundaries to contain the spread of development, housing capacity in East Honolulu will be increased by the “infill” development of remaining vacant lands on the relatively level coastal plain, primarily in the Hawaii Kai area; minor subdivisions of some larger residential lots into smaller parcels at scattered locations throughout the region; and expansions of existing homes to accommodate larger households. While the development of vacant parcels is readily identified and their effects are more immediately apparent, the physical changes wrought by incremental intensification of residential use in existing built-up neighborhoods through minor subdivisions and home expansions will be slower and more subtle. Effective residential lot design standards which limit building height, coverage, paving, and removal of landscaping should be implemented to avoid the long-term cumulative impact of this gradual transformation, which could adversely affect the character of existing neighborhoods.

#### **3.5.2 GENERAL POLICIES**

The following general policies may be applied to existing and planned residential developments:



- Increase housing capacity in East Honolulu through development of new homes on lots designated for low-density residential use and expansion of existing homes (including ohana units) in built-up residential neighborhoods.
- Respond to the special needs of an aging population by providing future housing development for a variety of living accommodations which are affordable to low- and moderate-income, gap group, and other elderly households; such as multi-generation households, group homes, assisted living units, and continuing care retirement communities.
- Modify residential neighborhood street design, where appropriate, to provide greater emphasis on safe, accessible, convenient and comfortable pedestrian routes, bus stops, and bike routes, even if this requires somewhat slower travel speeds or less direct routes and fewer on-street parking spaces for automobiles. This may require review and revision of City street standards.

### 3.5.3 PLANNING PRINCIPLES

- ***Physical Character and Definition of Neighborhoods.*** Establish design guidelines to minimize long-term adverse impacts of new infill development on surrounding neighborhoods. Encourage use of sloped roof forms with wide overhangs. Enhance the boundaries of existing neighborhoods through the use of landscaping, natural features, and building form and siting. Focus neighborhood activity on the local street, common pedestrian right-of-ways, or recreation areas.
- ***Transit-, Bicycle- and Pedestrian-Oriented Residential Streets.*** Encourage bus, pedestrian, and bicycle travel, particularly to reach neighborhood destinations such as schools, parks, and convenience stores, recognizing the need for accessible design and safe travel conditions for elderly or disabled people, or both. Implement passive and active automobile traffic calming measures on residential neighborhood streets and add street trees to provide shading for sidewalks and bus stops.
- ***Environmental Compatibility.*** Encourage energy efficient features, such as the use of solar panels for heating water, and passive solar design, such as the use of window recesses and overhangs and orientation of openings to allow natural cross-ventilation. Also, resource conservation measures such as water constrictors and facilities for the sorting of waste materials for recycling should be incorporated in the design of new development.

### 3.5.4 GUIDELINES

Guidelines to implement the general policies and planning principles are provided below:

#### 3.5.4.1 Residential Development

Three categories of urban residential development are recognized by this plan: Residential, Low-Density Apartment and Medium-Density Apartment. All of these categories are found only within the Urban Community Boundary.

- **Residential:** Dwellings in this category consist of single-family detached and attached homes or townhouses with individual entries. Density of development may range from 5-12 dwelling units per acre. Building heights generally do not exceed 2 stories.



- **Low-Density Apartment:** This category consists of predominantly 2-3 story townhouse complexes, stacked flats, or low-rise apartment buildings; parking provision may comprise a separate story. Overall building height should not exceed 40'. Buildings may have elevators and common entries for multiple dwellings. Density of development may range from 10-30 dwelling units per acre. It is intended the Low-Density Apartment designation will be applied only to sites that have already been developed in a manner that is consistent with the density and building height guidelines for this category, and to undeveloped areas zoned A-2 Apartment District as of the effective date of this plan.\*
- **Medium-Density Apartment:** This category of residential development takes the form of multistory apartment buildings with densities in the range of 25 to 90 dwelling units per acre. It is intended no new Medium-Density Apartment projects will be developed in the region; therefore, this designation is applied only to sites that have already been developed in a manner that is generally consistent with the density and building height guidelines for Medium-Density Apartment use.

For all existing developments in the Medium-Density Apartment category:

- Maintain building height setbacks and landscaping to reduce the direct visibility of taller buildings from lower density residential areas and from the streetfront. Possibly add low-rise accessory buildings within the height setback areas to provide a visual transition from the high-rise apartment building to adjacent areas. Building height should not exceed 90 feet.
- Consider mixed use zoning to permit limited commercial uses, primarily to serve residents of an apartment complex and the immediate neighborhood, depending on site characteristics and adequate justification for the need for such commercial uses based on demand and convenience to residents.

### 3.5.4.2 Special Needs Housing

Special Needs Housing comprise facilities designed for certain segments of the population, such as elderly or disabled people or both. Often such housing includes special features, such as: congregate dining and social rooms; laundry, housekeeping and personal assistance services; shuttle bus services for residents; and skilled nursing beds or both physical therapy clinics.

- Locate special needs housing within close proximity to transit services and commercial centers.
- Accommodate an allowable building density of 10 to 30 units per acre, not including beds in skilled nursing facilities; designated affordable housing projects may allow densities up to 30 units per acre if designed in a manner compatible with the character of the surrounding residential community.
- Emphasize compatibility between building height and adjacent uses, although the height may vary according to required flood elevation, slope, and roof form.
- Employ building form, orientation, location of entries, and landscape screening to maintain the existing residential scale.

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*\*Editor's note:*

*"The effective date of this plan" is July 27, 1999.*



- Ensure compatibility between building scale, roof form, and materials with those of adjacent residential areas.
- This land use is not specifically designated on Map A-2, Urban Land Use, but is allowed in all residential areas.

### 3.5.4.3 Other Uses in Residential Areas

The following uses are not specifically designated on Map A-2, Urban Land Use, but are allowed in all residential areas: elementary schools, parks, churches, community centers, child care centers, and public facilities and utilities serving the area.

## 3.6 NONRESIDENTIAL DEVELOPMENT

This section provides an overview of nonresidential development in East Honolulu followed by general policies, planning principles, and guidelines for the location, expansion or renovation of such uses. Nonresidential use includes retail commercial, office, service-oriented industrial, visitor accommodations, and institutional uses.

### 3.6.1 OVERVIEW

East Honolulu has a total of seven commercial centers, which are listed below.

**Table 3-6**

**Commercial Centers in East Honolulu**

Shopping Center	Year Opened	Site Area (Acres)	Gross Leasable Area	Anchor Tenants
Hawaii Kai Towne Center	1993	16.1	202,000	Price/Costco, City Mill
Koko Marina S.C.	1963	15.0	198,300	Foodland; Ben Franklin; Consolidated Theaters; First Hawaiian Bank
Hawaii Kai S.C.	1981	9.4	133,600	Safeway; Longs
Niu Valley Center	1962	4.5	89,910	Times Supermarket
Aina Haina S.C.	1950	7.0	69,700	Foodland; McDonalds
Hahaione Valley Center	1972	0.5	30,100	Food Pantry
Kalama Village Center	1991	4.0	19,300	Handi-Pantry

Source: International Council of Shopping Centers, 1992 Directory; interviews with property managers.

Hawaii Kai Towne Center, the largest retail complex in East Honolulu, provides parking for approximately 1,010 vehicles and attracts shoppers from outside the region with “big box” stores particularly Price/Costco as anchor tenants. Koko Marina Shopping Center, the second largest complex, includes ocean recreation-related services such as boating equipment and repair and dive tour headquarters; restaurants and entertainment attractions; and retail shops that serve the needs of both visitors and residents in the area. The market areas for other commercial centers



listed in **Table 3-7** are limited mostly to the communities for which they are named, emphasizing food and household products and personal services. In all of these smaller centers, additional floor area could be developed within their existing land areas with more efficient site design. However, demand for expansion has not been strong, particularly in the smallest of the commercial centers – Kalama Village. Only the first phase, occupying less than a third of the land area that had been designated for this project, had been developed as of 1997 and less than half of that developed floor area had been leased.

With the exception of the Japan-America Institute of Management Science (JAIMS), which is a private institute, most of East Honolulu’s office inventory is located within and adjacent to the Koko Marina Shopping Center and in two buildings – Hawaii Kai Corporate Plaza and Hawaii Kai Executive Plaza – that are located along Kalanianaʻole Highway makai of the Hawaii Kai Towne Center. These areas provide a combined total of nearly 200,000 square feet of office floor area, nearly 30 percent of which was vacant as of 1997. **Table 3-7** lists the locations and spaces that are currently built and occupied:

**Table 3-7****Office Inventory in East Honolulu**

<b>Office Building</b>	<b>Year Opened</b>	<b>Gross Leasable Area</b>	<b>Occupancy</b>
Japan-America Institute of Management Science (JAIMS)	1972	257,000	100%
Koko Marina Office Space	1963	47,760	63%
Hawaii Kai Executive Plaza	1990	41,582	50%
Hawaii Kai Corporate Plaza	1987	39,355	74%
Aina Haina Professional Building	1982	22,550	na
Koko Head Plaza	1975	21,226	90%
Hawaii Kai Medical/Office Center	1987	16,598	100%

There is a probable demand for certain light industrial uses that are oriented to the Hawaii Kai community. Such uses could include, among others, small warehousing facilities and appliance and automobile repair shops. However, the anticipated demand for space in this region is not sizable and the type and scale of such uses that may be needed could be conveniently located in a large commercial center with appropriate environmental and aesthetic controls to promote compatibility with adjacent uses. Many of these types of uses are in fact already located within some of East Honolulu’s commercial centers.

East Honolulu has only one resort hotel -- the Kahala Mandarin Hotel – that was developed nearly 30 years ago and recently underwent major renovation and change in management. No expansion of this resort hotel is anticipated.

### **3.6.2 GENERAL POLICIES**

For purposes of this Plan, the various types of nonresidential uses are defined and designated in four categories: Neighborhood Commercial Center, Regional Town Center, Resort and Institutional. The policies pertaining to each of these categories are as follows:



- ***Neighborhood Commercial Center.*** Designate the Aina Haina, Niu Valley, Kalama Village, and Hahaione Valley commercial centers as Neighborhood Commercial Centers. They should retain their present purpose and approximate size. The communities served by these Neighborhood Commercial Centers are expected to experience minimal population growth between 1995 and 2020. Modest additions of floor area and parking could be made to these centers through redesign of the sites they presently occupy. Consequently, there should be no need to designate additional land for expansion of the Neighborhood Commercial Centers. In fact, market response suggests that land that had originally been designated for the expansion of the site area of Kalama Village Center should be redesignated for residential use.
- ***Regional Town Center.*** Create a “Regional Town Center” in the Hawaii Kai Marina area by strengthening the relationship between the existing commercial uses in this area, increasing the mix of uses and types of services and activities in this commercial zone, and providing more convenient transportation access and pedestrian amenities.
- ***Resort and Institutional.*** Prohibit new or expanded land areas for resorts and institutional campuses. A new or expanded resort destination in East Honolulu would be contrary to General Plan policy. The small increase in population forecast for 2020 in East Honolulu does not warrant major new schools, hospitals, or similar institutions to serve these communities, and establishment of a large institution in East Honolulu for the purposes of creating additional employment in the region would be contrary to the General Plan policy to direct job growth to the Primary and Secondary Urban Centers.

### 3.6.3 PLANNING PRINCIPLES

The following planning principles apply to neighborhood and community commercial centers. They should apply to the expansion or renovation of existing commercial centers, as well as to the development of new neighborhood commercial centers.

- ***Scale and Purpose of Neighborhood Commercial Centers.*** The Neighborhood Commercial Center is typically located on 5 to 10 acres or less, within or adjacent to a residential area, and has frontage on at least one collector street or arterial highway. The center may have up to 100,000 square feet of floor area. These centers should continue to emphasize retail stores and personal services and public facilities designed to serve the needs of the surrounding community; i.e., typically residents within a 1- to two-mile radius.
- ***Mix of Uses in the Regional Town Center.*** This center will be composed of four components:
  - The Hawaii Kai Towne Center, given its size and location relative to principal travel routes in the region, should be designated as the focal point for regional shopping and services. This may include small to medium-sized “service-industrial” establishments.
  - The Koko Marina Shopping Center can play a complementary role with a focus on marina and ocean recreation services, specialty shops and entertainment attractions.
  - The two office buildings are the third component of the Regional Town Center. It is possible that vacancies in these buildings may gradually be absorbed by the projected 30 percent increase in the number of service-related jobs in this region. However, it may be possible to convert some



additional ground or 2nd floor space in these buildings to retail or other commercial uses if the demand for additional office space remains weak.

- The fourth component of the Regional Town Center is the Hawaii Kai Shopping Center. Its size and types of tenants are similar to those of a Neighborhood Commercial Center. However, because of its proximity to the other three components, it can play a supporting role in the creation of the Regional Town Center through physical linkages that are discussed below.
- ***Physical Linkages and Accessibility.*** Incorporate site design and facilities to promote pedestrian, bicycle, and transit access in Neighborhood Commercial Centers and the Regional Town Center. Pedestrian and bicycle access is more important for the Neighborhood Commercial Centers, while transit access is more significant for the Regional Town Center. Efficiencies and other improvements in traffic and parking conditions could be achieved by redesigning or re-siting parking lots, driveways and walkways, and providing shuttle bus and water taxi services between the components of the Regional Town Center.
- ***Appropriate Scale and Architectural Style.*** Maintain consistency between the building mass of a commercial center and its urban and natural setting. The architectural character of commercial centers should respect the surrounding urban and natural features, particularly when located adjacent to a residential area or significant natural or historic feature. Neighborhood Commercial Centers should reflect a residential architectural character. The Regional Town Center may reflect a more urban architectural character, but future additions or renovations to the Hawaii Kai Towne Center, in particular, should reflect a more positive orientation to its Marina frontage.
- ***Environmental Compatibility.*** Encourage energy efficient features, such as the use of solar panels for heating water, and passive solar design, such as the use of window recesses and overhangs and orientation of openings to allow natural cross-ventilation. Also, resource conservation measures such as water constrictors and facilities for the sorting of waste materials for recycling should be incorporated in the design of new development.

### 3.6.4 GUIDELINES

The following guidelines are intended to implement the general policies and planning principles listed above.

#### *Neighborhood Commercial Centers*

- ***Architectural Character and Building Mass***
  - Buildings should maintain a residential character; height, size, and massing of building should be compatible with all adjacent residential areas.
  - The total floor area should not exceed 100,000 square feet.
  - Gable and hip-form roofs should be encouraged, using breaks in the roof line to reduce the apparent scale of large roof plates.
  - Residential character should be expressed by using exterior materials and colors that are typically found in neighborhood houses.



- ***Vehicular Access***

- Access to the parking and loading areas should be from a collector street.
- Permit access to a local residential street only if it is for emergency or secondary access and would not encourage through traffic along the local street.

- ***Pedestrian and Bicycle Facilities***

- There should be at least one pedestrian access from the public sidewalk or other off-site pedestrian pathway to the entrance of establishments in the commercial center that does not require crossing a traffic lane or parking lot aisle or driveway.
- There should be a direct pedestrian connection from the interior walkways in the commercial center to a bus stop.
- Bicycle racks should be designed to provide security and be visible from the street entry.

- ***Visual Screening, Lighting, and Signage***

- Place parking and service areas behind the buildings or otherwise visually screened from streets and residential areas.
- Include a landscape screen of trees and hedges in setbacks from street frontages and property lines.
- Plant and maintain shade trees throughout parking lots.
- Use only low-level or indirect lighting which meets safety and security requirements in parking lots.
- Ensure compatibility between the type, size, design, placement, and color of signage and the context of adjacent facilities and uses.

***Regional Town Center***

- ***Mix of Uses***

- Enhance the Hawaii Kai Towne Center as a focus of activity with addition of public uses such as a Satellite City Hall.
- Permit service industrial uses within enclosed buildings. Locate, design, and operate uses that generate high noise levels in a way that will keep noise to an acceptable level in adjacent residential areas.
- Enhance the Koko Marina Shopping Center as a recreation/entertainment-oriented commercial complex with the addition of more services for ocean recreation, restaurants, and similar attractions.



- ***Architectural Character and Building Massing***

- The architectural character may be varied, depending on the context and the theme for the particular center. Portions of commercial center buildings that are adjacent to or readily visible from residential areas should reflect a more residential character; or be screened from view from such areas by landscaping.
- Avoid disruptive design contrasts between facades that are visible simultaneously from public areas.
- Avoid blank facades on portions of buildings visible from a street or the Hawaii Kai Marina by using texture, articulation, color, and fenestration to create visual interest.
- Building heights should generally not exceed 60 feet, with height setback transitions from street frontages, the Marina, and adjacent residential areas.

- ***Pedestrian, Bicycle, and Transit Facilities***

- Provide street frontage improvements for bus stops, including a bus shelter and a pull-out off a traffic lane, along all abutting streets which have bus routes.
- Provide a pedestrian pathway from the bus stop to an entrance to the main building of the commercial center. The pathway should be clearly indicated with special paving or markings and covered to provide weather protection, if the commercial center building is not directly connected to the bus shelter.
- Develop a pedestrian route along the marina edges of the Hawaii Kai Towne Center and the Hawaii Kai Shopping Center. The route should be linked by a pedestrian bridge in order to provide convenient access between the two commercial centers, as well as to enhance the recreational value of the marina.
- The marina should not be a barrier for those, particularly pedestrians, desiring to visit more than one shopping destination along the waterfront. A shuttle boat transport service should be considered as a means of transporting people across the water and thereby linking the Koko Marina Shopping Center on the east side of the marina with the Hawaii Kai Towne Center and the Hawaii Kai Shopping Center on the west side.
- Design bicycle racks to provide security and be visible from the street entry to the commercial center.

- ***Visual Screening, Lighting and Signage***

- Buffer noise and other adverse impacts from parking, loading and service areas from adjacent residential areas by a combination of solid walls or berms and landscaped setbacks.
- Plant a landscape screen, consisting of trees and hedges, along streets fronting parking lots or garages. Shade trees should be planted throughout parking lots.



- Visually screen storage areas for vehicles, equipment, and supplies from the street and adjacent lots by privacy walls and buildings, fronted by landscaping used to soften the appearance of large solid walls.
- Signage may be directly illuminated, but use of direct illumination of building features should be discouraged. High intensity lighting should be shielded to avoid direct visibility from residential areas.

### ***Resorts and Institutions***

- ***Architectural Character and Building Massing***

- Reflect in the site plan a campus-like environment with a relatively low building coverage ratio and emphasize attractive landscaping, including water features where appropriate.
- Vary the architectural character, depending on theme and purpose of the use. Portions of buildings that are adjacent to or readily visible from residential areas should reflect a more residential character; or be screened from view from such areas by landscaping.
- Building heights should generally not exceed 60 feet for Institutional use and 70 feet for Resort use. Height setback transitions should be provided from street frontages, the shoreline, and adjacent residential areas.

- ***Pedestrian, Bicycle, and Transit Facilities***

- Provide street frontage improvements for bus stops, including a bus shelter and a pull-out off a traffic lane, along all abutting streets which have bus routes.
- There should be a pedestrian pathway from the bus stop to an entrance to the main building of the institution or resort facility. The pathway should be clearly indicated with special paving or markings.
- Design bicycle racks to provide security and be visible from the main street or parking entry to the institution or resort.

- ***Visual Screening, Lighting and Signage***

- Buffer the noise and other adverse impacts from parking, loading, and service areas from adjacent residential areas by a combination of solid walls or berms and landscaped setbacks.
- Plant a landscape screen, consisting of trees and hedges, along streets fronting parking lots or garages. Shade trees should be planted throughout parking lots.
- Visually screen storage areas for vehicles, equipment, and supplies from the street and adjacent lots by privacy walls and buildings, fronted by landscaping used to soften the appearance of large solid walls.



- Signage should be nonilluminated or indirectly illuminated. High intensity lighting should be shielded to avoid direct visibility from residential areas.

**3.6.5 OTHER USES IN NONRESIDENTIAL AREAS**

Other uses in nonresidential areas are shown on Map A-2, Urban Land Use in Appendix A as follows:

Elementary schools, churches, child care centers, fire stations, and other public facility and utility uses serving the area are not specifically designated on the Urban Land Use Map, but are allowed in all residential and commercial areas, subject to appropriate zoning controls to assure compatibility with surrounding uses. The general locations of existing larger institutions, such as high schools, are indicated by special symbols.



## **Honolulu - Land Use**



#### **4. PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND PRINCIPLES**

The vision for East Honolulu will be implemented in part through application of the general policies and principles for public facilities and infrastructure which are presented in sections 4.1.1 through 4.1.5.

##### **4.1 TRANSPORTATION SYSTEMS**

This section describes the existing road, transit, and bikeway network in East Honolulu as well as plans for future improvements. These elements are shown in the Public Facilities Map in Appendix A. The section concludes with general policies and planning principles to guide future transportation system development in East Honolulu.

###### **4.1.1 EXISTING AND PLANNED ROADWAY NETWORK**

###### **4.1.1.1 Existing Roadways**

The only major roadway arterial in East Honolulu is Kalanianaʻole Highway (State Highway 72), which links Honolulu to the communities of East Honolulu and is also a scenic, secondary route for travel between Kailua/Waimanalo and Honolulu.

Portions of the highway were recently widened and upgraded so that the entire 4.2-mile stretch between Ainakoa Avenue and Keahole Street consists of six lanes (three lanes in each direction). One of the lanes is designed as a High Occupancy Vehicle (HOV) contra-flow lane, thus providing four Honolulu bound lanes during the morning peak between West Halemaumau Street and Ainakoa Avenue. This lane is restricted to buses, vanpools, motorcycles, and carpools. Other improvements made to this section of the highway include left-turn lanes, bus turnouts, improved traffic control systems, and improved lighting.

Major roadway collectors in East Honolulu are those leading from Kalanianaʻole Highway into the ridge and valley neighborhoods. Important intersections include but are not limited to Kalaniiki Street, West Hind Drive, Hawaii Kai Drive, Keahole Street, and Lunalilo Home Road. Hawaii Kai Drive runs parallel to Kalanianaʻole Highway through parts of Hawaii Kai. However, because a section of the planned route for Hawaii Kai Drive in the Kāmilanui Valley area has not been completed, it does not function as an additional mauka access route linking Maunaloa Bay to Kālama Valley.

###### **4.1.1.2 Planned Roadways**

Planning and development of roadways are the responsibility of the State department of transportation and the City department of transportation services. Roadway projects using federal transportation funds also involve the Oahu Metropolitan Planning Organization (OMPO), a joint City-State agency.

In November of 1995, OMPO prepared the 2020 Oahu Regional Transportation Plan (ORTP). According to the ORTP, no major projects are planned for East Honolulu's roads for the immediate term. In the 2001-2005 time period, the ORTP includes plans to extend the morning HOV lane from West Halemaumau Street to Keahole Street. The existing park-and-ride lot at Keahole Street would be served by this extension. In the 2006-2020 period, plans call for the addition of one westbound lane from Laukahi Street to the Kilauea Avenue off-ramp. These projects, however, will be re-evaluated in the 1999 update of the ORTP taking the communities' concerns into consideration.



As mentioned in the previous section, there is an uncompleted section of Hawaii Kai Drive in the Kamilonui Valley area. While this project is not included in the ORTP, it would be desirable to complete this link to provide for more direct travel from Lunalilo Home Road to Kamilonui Place and to create a new bicycle route (see Section 4.1.3).

#### 4.1.2 TRANSIT SYSTEM

On an average weekday, a little less than 40 percent of transit trips on TheBus are between home and work. Slightly over 40 percent of weekday trips are for other home-based trips (to school, shopping, etc.) The remainder are nonhome-based trips and trips made by visitors.<sup>8</sup>

East Honolulu is serviced by nine bus routes (see **Table 4-1**). Bus service in Hawaii Kai is complemented by a park-and-ride facility on Keahole Street across from the Hawaii Kai Towne Center. Park-and-ride facilities, which serve as a central access point for buses and autos, are ideal for lower density areas such as Hawaii Kai.

**Table 4-1**

**Bus Routes Servicing East Honolulu**

Route Number	Route Type	General Service Area Within East Honolulu
1	Urban Trunk	Kalanianaʻole Highway; Aina Haina; Hahaione Valley; Lunalilo Home Road
21	Urban Collector	Waialae Iki/Waialae Nui
22	Urban Collector	Kalanianaʻole Highway; Hanauma Bay; Sandy Beach; Makapuu
58	Suburban Trunk	Kalanianaʻole Highway; Lunalilo Home Road; Kalama Valley; Makapuu
80	Express	Kalanianaʻole Highway; Lunalilo Home Road; Park & Ride
80A	Express (UH)	Kalanianaʻole Highway; Lunalilo Home Road; Kalama Valley; Park & Ride
80B	Express (Downtown)	Kalanianaʻole Highway; Aina Haina
82	Express	Kalanianaʻole Highway; Kalama Valley; Park & Ride
95	Express	Kalanianaʻole Highway; Lunalilo Home Road; Park & Ride

There are no plans to extend or expand the number of routes, but the frequency and capacity of transit service will be increased by additions to the islandwide bus fleet. Service will also be enhanced by making highway and street improvements designed to make bus travel more efficient, convenient and comfortable.

#### 4.1.3 BIKEWAY SYSTEM

Oahu has 55.4 miles of existing bikeways. Bike Plan Hawaii (1994), a State master plan for bikeways, proposes another 293.1 miles islandwide. The timetable for development will depend upon construction feasibility (including right-of-way acquisition) and funding. Bike Plan Hawaii defines the various types of bikeways:

<sup>8</sup> Barton-Aschman Associates, Inc. Comprehensive Operations Analysis of TheBus System (August 1993), p. 1-3 to 1-4.



- ***Bicycle Route.*** Any street or highway so designated, for the shared use of bicycles and motor vehicles or pedestrians or both. Bike routes are of two types: a) a widened curb lane in an urban-type area; and b) a paved right shoulder in a rural-type area.
- ***Bicycle Lane.*** A portion of a roadway designated by striping, signing, and pavement markings for the preferential or exclusive use of bicycles. Through travel by motor vehicles or pedestrians is not allowed unless specified by law, rule, or ordinance; however, vehicle parking may be allowed for emergencies. Crossflows by motorists to gain access to driveways or parking facilities are allowed; pedestrian crossflows to gain access to parked vehicles, bus stops, or associated land use are allowed.
- ***Bicycle Path.*** A completely separated right-of-way normally designated for the exclusive or semi-exclusive use of bicycles. Through travel by motor vehicles is not allowed unless specified by law, rule, or ordinance. Where such a facility is adjacent to a roadway, it is separated from the roadway by a significant amount of open space and/or a major physical barrier (such as trees or a considerable change in ground elevation).

In East Honolulu, the existing bikeway system consists of a bike lane along Kalanianaʻole Highway from Kahala to Lunalilo Home Road and a bike route along the Lunalilo Home Road-Hawaii Kai Drive-Kealahou Street corridor (see **Figure 4-1**).

The State's bikeway master plan proposes substantial additions to East Honolulu's bikeway system. Proposed bike lanes would extend from Kalanianaʻole Highway into Aina Haina, Niu Valley, Hahaione Valley, and Hawaii Kai. A bike route is proposed to be established along Kalanianaʻole Highway from Lunalilo Home Road to Kealahou Street, and along the future Hawaii Kai Drive section in Kāmilanui Valley. **Table 4-2** provides details on existing and proposed bikeways in East Honolulu.



**Figure 4-1: East Honolulu Bikeway System**

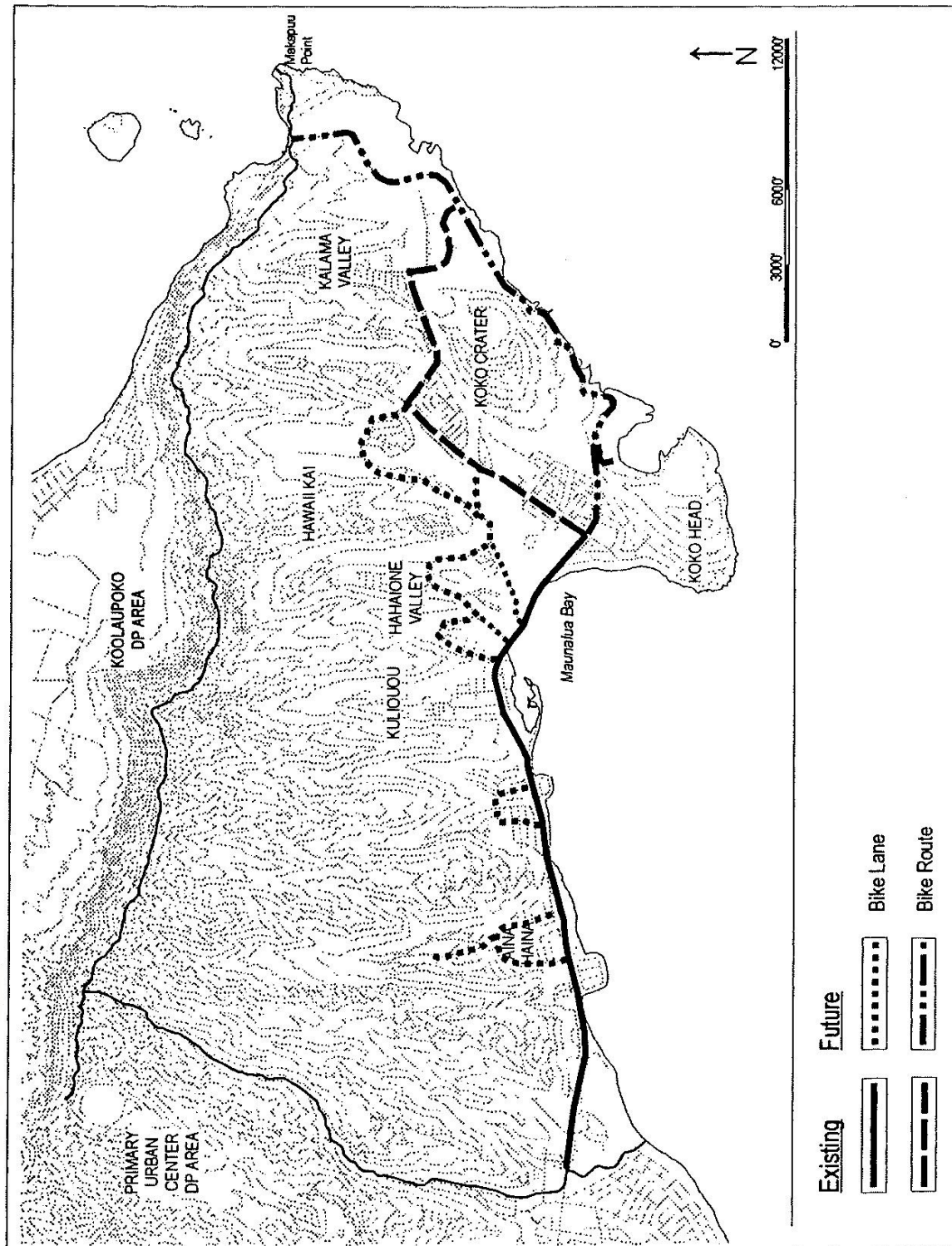




Table 4-2

**East Honolulu Bikeways: Existing and Proposed**

<b>Description</b>	<b>Type</b>	<b>Length (miles)</b>	<b>Priority <sup>1</sup></b>
Kalanianaʻole Highway (Lunalilo Home Rd. to Kilauea Ave.)	Lane	5.6	Existing
Kealahou Street (Kalanianaʻole Hwy. to Hawaii Kai Dr.)	Route	0.8	Existing
Hawaii Kai Drive (Kealahou St. to Lunalilo Home Rd.)	Route	1.1	Existing
Lunalilo Home Road (Kalanianaʻole Hwy. To Hawaii Kai Dr.)	Route	1.8	Existing
Kawaihae Street (Kalanianaʻole Hwy. to Hawaii Kai Dr.)	Lane	0.9	2
Hawaii Kai Drive (Kawaihae St. to Wailua St.)	Lane	1.3	2
Keahole Street (Kalanianaʻole Hwy. to Hawaii Kai Dr.)	Lane	0.6	2
Wailua Street (Hawaii Kai Dr. to Lunalilo Home Rd.)	Lane	0.5	2
West Hind Drive/East Hind Drive	Lane	1.2	2
Hind Iuka Drive (E. Hind Dr. to Wailupe Valley School)	Lane	0.7	2
Halemaumau Street (Kalanianaʻole Hwy. to Kalanianaʻole Hwy.)	Lane	0.8	2
Hawaii Kai Drive (Kalanianaʻole Hwy. To Kawaihae St.)	Lane	0.4	2
Kalanianaʻole Highway (Lunalilo Home Rd. to Nawiliwili St.)	Lane	0.4	3
Kalanianaʻole Highway (Kealahou St. to Wailea St.)	Route	4.8	3
Hanauma Bay Road	Route	0.3	3
Kalanianaʻole Highway (Nawiliwili St. to Kealahou St.)	Route	2.8	3
Hawaii Kai Drive Extension (Kamilonui Valley area)	Route	1.4	3

<sup>1</sup> Priority 1 proposals have a timeframe of under 5 years; Priority 2 proposals have a timeframe of under 10 years; Priority 3 proposals have a timeframe of more than 10 years.

Source: Department of Transportation, Highways Division, Bike Plan Hawaii: A State of Hawaii Master Plan (April 1994).

#### 4.1.4 GENERAL POLICIES

The following general policies support the vision for a multimodal transportation system in East Honolulu:

- To maintain East Honolulu's role as a predominantly residential urban fringe area with limited future growth, its transportation system should provide:
  - Adequate access between communities, shopping, and recreation centers in East Honolulu.
  - Improved access to adjacent areas.



- Adequate person-carrying capacity for peak-period commuting to and from work in the Primary Urban Center.
- Reduce reliance on the private passenger vehicle by promoting transportation system management (e.g., contraflow lane operations) and travel demand management (e.g., mass transit, carpool and vanpool programs) measures for both commuting and local trips.

#### 4.1.5 PLANNING PRINCIPLES AND GUIDELINES

- ***Commuter Travel.*** For commuter trips, the objective is to minimize the impact of population growth on travel times.
  - Provide improved services and facilities for express buses, such as more frequent, larger-capacity and more comfortable vehicles and expansion of improved park-and-ride facilities, including possible relocation and provision of compatible accessory uses.
  - Promote ridesharing and vanpooling.
  - Increase person-carrying capacity on Kalanianaʻole Highway for commuter travel without expanding rights-of-way or exacerbating delays in access to the highway from collector streets during peak periods.
- ***Local Trips.*** For local trips, the objective is to promote alternative modes of travel and less automobile travel.
  - Complete the link between the two built portions of Hawaii Kai Drive in the Kāmilanui Valley area, thereby providing an additional mauka access route linking Maunaloa Bay to Kālama Valley.
  - Modify rights-of-way design in selected areas – particularly along designated bike lanes and routes, principal pedestrian routes and street crossings, and near bus stops – change travelway widths or curb radii, pavement texture, introduce appropriate signage, and provide more generous landscaping.
  - Provide more convenient pedestrian paths within commercial and other high-activity areas (e.g., from the park-and-ride facility to the Hawaii Kai Towne Center) to encourage people to walk short distances for multipurpose trips instead of moving the vehicle to another parking facility.
  - Implement a pedestrian system around the Hawaii Kai Marina to improve accessibility to various waterfront locations (see Section 3.1.3.8).
  - Implement traffic calming measures in appropriate residential areas to reduce average motor vehicle speeds and make vehicular routes less direct, thereby increasing safety and enjoyment for pedestrians and bicyclists.
  - Design on-street and off-street parking facilities more efficiently to encourage joint use of parking in ways that ensure public safety.



## 4.2 WATER ALLOCATION AND SYSTEMS DEVELOPMENT

In 1987, the State enacted the Water Code (HRS Chapter 174C) in order to protect, control, and regulate the use of the State's water resources. This Code is implemented through the Hawaii Water Plan which addresses water conservation and supply issues on a statewide level by incorporating county water plans and water-related project plans.

The Oahu Water Management Plan (OWMP), signed into law in 1990, is the City and County of Honolulu's component of the Hawaii Water Plan. The OWMP sets forth strategies to guide the State Commission on Water Resource Management (CWRM) in planning and managing Oahu's water resources.

Based on CWRM's 1996 basal permitted uses on Oahu for about 340 million gallons per day (mgd), there is approximately 75 mgd<sup>9</sup> of untapped sustainable yield remaining in the islandwide groundwater supply to be developed.

In East Honolulu, municipal water is primarily supplied by the Board of Water Supply (BWS). In 1990, East Honolulu consumed 8.7 mgd of potable water, or about six percent of the islandwide total. According to the BWS, East Honolulu will need a total of approximately 10.0 mgd of potable water by the year 2020, an increase of about 1.3 mgd from 1990, in order to accommodate future residential and commercial growth.<sup>10</sup>

To meet future potable water demand, BWS has identified several potential well sites in the Waialae East and West aquifers which could provide sufficient water supply for East Honolulu. The Waialae West aquifer has a sustainable yield of 4 mgd of which 1.99 mgd are permitted. The Waialae East aquifer has a sustainable yield of 2 mgd of which 0.6 mgd is permitted. The balance of 3.41 mgd available supply consists of low yield, very expensive wells. For the short-term BWS will target those groundwater sites that are economically feasible to develop. Other management strategies identified in the OWMP include water conservation, groundwater development in outlying areas, surface water development, desalination, and water recycling.

The BWS long-range plan is to develop new Windward water sources to serve Windward and East Honolulu users. This source development will allow redistribution of water presently pumped to East Honolulu from existing Pearl Harbor and Honolulu sources to accommodate future growth in the Primary Urban Center and other areas.

### 4.2.1 GENERAL POLICIES

General policies pertaining to East Honolulu's potable and nonpotable water systems are as follows:

- Integrate management of all potable and nonpotable water sources, including groundwater, stream water, stormwater, and effluent, following State and City legislative mandates.
- Adopt and implement water conservation practices in the design of new developments and the modification of existing uses, including landscaped areas.

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<sup>9</sup> Accounts for interim flow standards

<sup>10</sup> Wilson Okamoto & Associates. Oahu Water Management Plan, Initial Revision of Technical Reference Document (October 1996).



#### 4.2.2 PLANNING PRINCIPLES AND GUIDELINES

- ***Development and Allocation of Potable Water.*** While the State CWRM has final authority in all matters regarding administration of the State Water Code, the BWS should coordinate development of potable water sources and allocation of all potable water intended for urban use on Oahu. The BWS should certify that adequate potable and nonpotable water is available in order for a new residential or commercial development to be approved. State and private well development projects could then be integrated into and made consistent with City water source development plans.
- ***Water Conservation Measures.*** Conserve the use of potable water by implementing the following measures, as feasible and appropriate:
  - Low-flush toilets, flow constrictors, and other water conserving devices in commercial and residential developments.
  - Indigenous, drought-tolerant plant material and drip irrigation systems in landscaped areas.
  - The use of tertiary-treated recycled water for the irrigation of golf courses and other landscaped areas where this would not adversely affect potable groundwater supply.

#### 4.3 WASTEWATER TREATMENT

East Honolulu is divided into two wastewater service areas. The western portion of the region, from Kahala to Niu Valley, is part of the East Mamala Bay service area. Wastewater from this service area is pumped to the Sand Island Wastewater Treatment Plant (WWTP) via the Ala Moana wastewater pump station. From Kuliouou eastward, sewage is pumped to the privately operated East Honolulu Wastewater Treatment Plant.

##### 4.3.1 SAND ISLAND WASTEWATER TREATMENT PLANT

The Sand Island WWTP has a design capacity of 82 mgd average flow and is operating at approximately 89 percent capacity. Some components of the collection system, including sewer lines and pump stations, are at or close to 100 percent capacity.<sup>11</sup> Between 1995 and 2020, the Department of Environmental Services (ENV) projects that nearly all of the increase in wastewater flow at the Sand Island WWTP will be from the Sand Island sewer shed. Wastewater flow generated in East Honolulu, specifically from the Kahala-Niu Valley sewer shed, currently comprises only a very small portion of the total flow to Sand Island and is projected to increase by less than three percent between 1995 and 2020. Therefore, the projected increase from East Honolulu flows will have a negligible impact on capacity demand at the Sand Island WWTP. In order to meet future demand throughout the area served by the Sand Island WWTP, the East Mamala Bay Final Wastewater Facilities Plan recommends a combination of increasing capacity and reducing flows via water conservation and rehabilitation projects.

Flows from Kuliouou Valley are currently pumped via the Kuliouou Wastewater Pump Station (WWPS) to the Hawaii Kai system under an existing agreement between the City and East Honolulu Community Services, the private company which owns and operates the Hawaii Kai system and the East Honolulu WWTP. The average daily flow from the Kuliouou WWPS is about 0.50 mgd and is not projected to increase over the next 25 years. The ENV is conducting an engineering study to evaluate the most cost-effective approach for future disposal of Kuliouou

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<sup>11</sup> Belt Collins Hawaii. "East Mamala Bay Final Wastewater Facilities Plan" (December 1993), p. 1-7.



flows. A primary objective is to prevent wastewater spills and provide adequate collection and transmission capacity to accommodate projected high rainfall/peak flow conditions.

#### **4.3.2 EAST HONOLULU WASTEWATER TREATMENT PLANT**

The privately owned East Honolulu WWTP opened in 1965 and is located on the mauka side of Kalanianaʻole Highway near Sandy Beach. The State Public Utilities Commission requires that the plant accept wastewater from public or private sources in the service area.

The plant primarily collects wastewater from residential sources in the Hawaii Kai, Kuliouou, Paiko, and Portlock communities. Some wastewater is also received from commercial users around Koko Marina. The actual population served by the plant is approximately 37,000, or 81 percent of East Honolulu's 1990 population.

The East Honolulu WWTP is a partial-tertiary treatment facility. The plant's design capacity is 5.2 mgd with current flows at approximately 3.8 mgd. The treated effluent is discharged via a 36-inch outfall, 1,400 feet off Sandy Beach at depths between 29 and 45 feet. The receiving waters are classified as "Class A" (generally dry, open coastal water) and "Class II" (marine bottom type) by the State Department of Health (DOH). Biosolids from the plant are dried and taken to a municipal landfill.

Under the State of Hawaii's rules and guidelines for wastewater systems and the treatment and use of reclaimed water, recycled water from the wastewater facility can be used for irrigation purposes. At present, a 2 mgd filtration and disinfection facility has been built to produce R-1 rated recycled water for irrigation purposes. As of October 27, 1997, the State authorized the Hawaii Kai Golf Course to use this recycled water from the East Honolulu WWTP for irrigation.

#### **4.3.3 GENERAL POLICIES**

The following general policies apply to wastewater treatment in East Honolulu:

- Connect all wastewater produced by urban uses in East Honolulu to a publicly regulated or municipal sewer service system.
- Implement, where feasible, water recycling as a water conservation measure.
- Provide buffer zones and landscape elements between the East Honolulu WWTP and adjacent residential-designated areas which mitigate possible visual, noise, and odor impacts.

#### **4.3.4 PLANNING PRINCIPLES AND GUIDELINES**

- ***Water Recycling.*** Encourage or require, as feasible and appropriate, the use of recycled water from the East Honolulu WWTP as a source for irrigating golf courses and other uses compatible with the State's rules and guidelines for the treatment and use of recycled water.
- ***Private Operation of the East Honolulu WWTP.*** The East Honolulu WWTP should remain under private operation under the regulatory supervision of the State Public Utilities Commission and department of health unless there is a compelling reason and a mutually satisfactory agreement between the City and the private operator to incorporate this treatment plant within the municipal wastewater treatment system.



- ***Use of Buffer Zones and Landscape Elements.*** Adequate horizontal separations and landscape elements (e.g., berms and windrows) should be provided between the East Honolulu WWTP and adjacent residential-designated areas. In order to mitigate negative impacts of the wastewater treatment plant, site-specific studies should be conducted to determine the width of the buffer zone and specific types of landscaping elements to use.

#### 4.4 ELECTRICAL POWER DEVELOPMENT

The Hawaiian Electric Company forecasts that increased demand will create a need for additional island-wide power generation capacity by 2020. Growth policies in the General Plan of the City and County of Honolulu direct significant residential growth to the Primary Urban Center, Ewa, and Central Oahu Development Plan Areas. East Honolulu is designated as an urban fringe area and is projected to have limited future population growth. As such, East Honolulu will not be a major source of island-wide future power demand. Electrical power development is thus not a significant component of the East Honolulu Development Plan.

##### 4.4.1 GENERAL POLICIES

The following general policy pertains to electrical power development in East Honolulu:

- Design system elements such as substations and transmission lines to avoid or mitigate any potential adverse impacts on scenic and natural resource values.

##### 4.4.2 PLANNING PRINCIPLES AND GUIDELINES

- ***Facility Routing and Siting Analysis.*** If any new or relocated substations or transmission lines are necessary, the selection of the route or site of such facilities should avoid or mitigate any potential adverse impacts on scenic and natural resources. Although these facilities are not shown on the Public Facilities Map, their routes and sites are reviewed and permitted by administrative agencies of the City.

#### 4.5 SOLID WASTE HANDLING AND DISPOSAL

Solid waste collection, transport, and disposal operations on the island are provided by the City department of environmental services, refuse collection and disposal division (primarily single-family curbside pickup) and private haulers (primarily commercial and multifamily pickup). In addition, individuals can haul their own trash to one of six convenience centers around Oahu. The collected refuse is ultimately disposed of either in a waste-to-energy incineration facility or sanitary landfill. Incineration, accounting for approximately 50 percent of the island's waste disposal, is done at the H-POWER plant, located in the Ewa region. The City's sanitary landfill is at Waimanalo Gulch, also in the Ewa region, and has a remaining site life to the year 2001 under existing load levels. The City has instituted recycling and other waste diversion programs in a effort to extend the useful life of this landfill.

In East Honolulu, there are presently no convenience centers where residents can dispose of large bulky items, although the Keehi Transfer Station will accept household rubbish and yard waste. For East Honolulu residents, the closest facilities for the disposal of bulky items are at Kapaa and Waimanalo. There are no plans to locate a convenience center, another transfer station, or a landfill operation in East Honolulu.



#### 4.5.1 GENERAL POLICIES

The following general policy applies to solid waste handling and disposal in East Honolulu:

- As waste management and technological innovations occur, East Honolulu can and should play a part in the City's long-term efforts to establish more efficient waste diversion and collection systems. However, since the region is not expected to contribute significantly to future increases in Oahu's solid waste management demands and does not contain sites suitable for the processing or disposal of solid waste on an islandwide scale, no short-term significant program changes are planned.

#### 4.5.2 PLANNING PRINCIPLES AND GUIDELINES

- ***Recycling Programs and Facilities.*** Promote the recycling of waste materials by providing expanded collection facilities and services, and public outreach and education programs.
- ***Efficient Solid Waste Collection.*** Expand the use of automated refuse collection in residential areas.

### 4.6 DRAINAGE SYSTEMS

The streams which drain the valleys of East Honolulu include Waialae Iki Stream, Wiliwilinui Stream, Wailupe Stream, Niu Stream, and Kuliouou Stream. These streams begin in the Koolau Range and discharge into Maunalua Bay. The drainage basins are long and narrow and range from 0.3 to 3.2 square miles in area. The upper reaches of the basins are very steep, while the lower reaches are almost flat.

Several drainageways have been prone to flooding during more intense rainstorms. Niu Valley, Kuliouou Valley, and Hahaione Valley, in particular, experienced severe flooding during the New Year's Eve flood of 1987. Heavy rainfall at the head of the valleys, combined with falling rocks and debris, overwhelmed the capacities of the concrete-lined stream channels. Along the Niu and Hahaione drainageways, debris-clogged bridges and culverts contributed significantly to the flooding problems.

A federal reconnaissance study found that the Wailupe Stream faces similar drainage problems. According to the study, the Wailupe drainage basin's existing flood control system is unable to accommodate debris flows. Furthermore, the existing stream channel is incapable of handling clear water flood discharges greater than about a 20-year recurrence interval. Among the preliminary improvement alternatives under consideration are channeling 8,900 feet of Wailupe Stream from the mouth to the existing boulder basin, enlarging the existing boulder basin, and constructing a new debris basin in Kului Gulch.

In the area between Kamehame Ridge and the Hawaii Kai Golf Course, a 40-foot wide concrete channel alters the natural drainage pattern. Water collected from this area is carried along the drainageway which passes under Kalanianaʻole Highway and into Kailiili Inlet.

#### 4.6.1 GENERAL POLICIES

General policies pertaining to East Honolulu's drainage system are as follows:

- A comprehensive study of local flooding and drainage problems should be developed and should include a phased plan for improvements.



- Promote drainage system design which emphasizes control and minimization of nonpoint source pollution and the retention of stormwater on-site and in wetlands.
- View stormwater as a potential irregular source of water for recharge of the aquifer that should be retained for absorption rather than quickly moved to coastal waters.
- Select natural and man-made vegetated drainageways and retention basins as the preferred solution to drainage problems wherever they can promote water recharge, help control nonsource pollutants, and provide passive recreation benefits.
- Keep drainageways clear of debris to avoid the flooding problems that have occurred in the past.

#### 4.6.2 PLANNING PRINCIPLES

Principles to guide the maintenance and improvement of East Honolulu's drainage systems include:

- ***Retention and Detention.*** Emphasize retaining or detaining stormwater for gradual release into the ground as the preferred strategy for management of stormwater. Also, large-capacity boulder and debris basins in upper valleys above urbanized areas should be properly maintained in order to prevent the blocking of downstream channels during major storm events.
- ***Stream Channel Improvements.*** To the extent possible, integrate planned improvements to the drainage system into the regional open space network by emphasizing the use of retention basins, creation of passive recreational areas, and recreational access for pedestrians and bicycles without jeopardizing public safety. In places where the hardening of stream channels is unavoidable or highly desirable to prevent significant loss of property or threat to public health and safety, as in the case of Wailupe Stream, the improvements should be designed and made in a manner which protects natural resource and aesthetic values of the stream to the greatest extent possible, consistent with the guidelines expressed in Section 3.1.3.3.

#### 4.7 SCHOOL FACILITIES

Public schools in East Honolulu are part of the Department of Education's (DOE) Honolulu District. There are eight elementary schools in East Honolulu, one intermediate school (Niu Valley Intermediate), and two high schools (Kalani High School and Kaiser High School).

Recent enrollment figures for these schools show that they are operating under capacity (see **Table 4-3**). For this reason, the DOE does not have plans for new school construction in East Honolulu. Additional demand generated by any future residential developments can be absorbed by the existing facilities. If necessary, school boundaries could be adjusted to allocate additional demand to schools that have the most available capacity.



<b>Table 4-3</b>		
<b>Public School Enrollment, 1995</b>		
<b>Facility</b>	<b>Enrollment</b>	<b>Capacity</b>
<b>Elementary</b>		
Aina Haina	490	700
Hahaione	560	800
Koko Head	380	800
Wailupe Valley	170	280
Kamiloiki	580	630
<b>Intermediate</b>		
Niu Valley	530	910
<b>High School</b>		
Kalani	1,120	1,450
Kaiser	1,100	1,300

Source: Department of Education, Facilities and Support Services Branch (1996).

Although new public school construction is not anticipated for East Honolulu, new demand will still create associated expenses. At some schools, such as Koko Head Elementary, excess space is utilized for DOE offices. Reclaiming this space for classroom use would involve renovation expenses in addition to expenses related to relocating the DOE office personnel to other facilities.

There are also several independent schools in East Honolulu, listed in **Table 4-4**, which are either religious-affiliated or based on a particular educational philosophy. While such schools will probably continue their presence in East Honolulu, they are not expected to increase significantly in number or size. The scale and location of existing campuses are generally compatible with the predominate residential character of the region.

<b>Table 4-4</b>		
<b>Private School Enrollment, 1994</b>		
<b>Facility</b>	<b>K-8</b>	<b>9-12</b>
Holy Nativity School	120	0
Holy Trinity School	140	0
Honolulu Waldorf School	210	10
Koko Head Prep & Tech	0	30



**Table 4-4****Private School Enrollment, 1994**

<b>Facility</b>	<b>K-8</b>	<b>9-12</b>
Star of the Sea Early Learning Center	50	0
Star of the Sea Elementary	350	0

Source: Department of Education, Public and Private School Enrollment.

#### 4.7.1 GENERAL POLICIES

General policies relating to school facilities are listed below:

- Approve new residential developments only after the State Department of Education certifies that adequate school facilities, either at existing schools or at new school sites, will be available when the development is completed.
- Have developers pay their fair share of all costs needed to ensure provision of adequate school facilities for the children living in their developments.

#### 4.7.2 PLANNING PRINCIPLES AND GUIDELINES

The following principles and guidelines should be followed in planning and operating schools in East Honolulu.

- **Adaptive Reuse.** While the demand for classroom space has been declining in some sections of East Honolulu, needs could change significantly, even with a relatively slow rate of population growth if there is a future shift in household characteristics as younger adults with school-age children replace or move in with elderly residents in single-family dwellings.

Therefore, the existing inventory of school facilities should be maintained. To make more efficient use of these facilities, as well as DOE fiscal resources, some of the unneeded classroom space could be converted for temporary use as administrative office space for DOE personnel. This largely reflects a strategy that DOE has already adopted.

- **Shared Facilities.** The Department of Parks and Recreation should coordinate with the DOE the development and use of athletic facilities such as playgrounds, play fields and courts, swimming pools, and gymnasiums where the joint use of such facilities would maximize use and reduce duplication of function without compromising the schools' athletic programs (see also Section 3.3.3). Moreover, the DOE should coordinate the structural design of school buildings with the department of emergency management so that these facilities may be used as public hurricane shelters.
- **Fair Share Contribution.** The City should support the DOE's requests for fair share contributions from developers of residential projects to ensure that adequate school facilities are in place at existing schools to meet the needs of residents.
- **New Facilities.** If a new public or private school campus or a significant increase in enrollment capacity at one of the existing campuses is proposed, the guidelines for institutions in Section 3.6.4 should apply.



#### 4.8 CIVIC AND PUBLIC SAFETY FACILITIES

The City and County of Honolulu operates 19 Satellite City Halls islandwide. These facilities offer many basic services for residents, including bus pass sales, bicycle registration, and driver's license renewals. There are no permanent Satellite City Hall facilities in East Honolulu. However, this area is served by a mobile Satellite City Hall which is parked at the Koko Marina Shopping Center. Consideration could be given to leasing a space in one of Hawaii Kai's shopping centers to establish a permanent presence.

The Honolulu Police Department (HPD) services East Honolulu out of the Main station on Beretania Street. Currently, 160 staff and officers are assigned to the area from Punahou Street to Makapuu. HPD is now in the planning stages for a new station in Aina Haina. The facility would be located on City-owned land behind Aina Haina Elementary School.

The Honolulu Fire Department (HFD) operates fire stations in Hawaii Kai and Wailupe. The Hawaii Kai station is equipped with five-person engine and ladder trucks and a rescue boat. The Wailupe station has a five-person engine. In addition, parts of the Kahala area are also served by the Kaimuki station. HFD has no immediate plans to establish any additional new stations in East Honolulu. As land use changes occur through development or redevelopment of older areas, as the demographic profile of the region changes, and as aquatic recreational activities increase, the facilities and staff needed by the HFD to serve East Honolulu may warrant reassessment.

Ambulance service, staffed by the City's Emergency Medical Services Division, is currently provided from each of the fire stations. However, additional land area to provide for adequate new facility/ambulance space will be needed for the EMS crew collocated at the Hawaii Kai Fire Station in the near future. Also, as regional recreational activities along this eastern corridor of Oahu increase, emergency medical services may need to be reevaluated.

##### 4.8.1 GENERAL POLICIES

The following general policy pertains to public safety facilities:

- Provide adequate staffing and facilities to ensure effective and efficient delivery of basic governmental service and protection of public safety.

##### 4.8.2 PLANNING PRINCIPLES AND GUIDELINES

These principles and guidelines are intended to carry out the above policy.

- ***Satellite City Hall.*** Establish a permanent Satellite City Hall in East Honolulu, preferably within the Regional Town Center to reinforce this area as a regional focal point or gathering spot for activities and services.
- ***Maintain Police and Fire/Ambulance Stations.*** After the proposed new police station at Aina Haina is completed, a permanent base of operations for the eastern sector of Oahu will be established. As future needs arise, the development of a substation (collocated with other emergency medical and transportation services) along an entry to Hawaii Kai, may warrant consideration to more effectively and quickly respond with public safety and medical services.
- ***Adequate Police and Fire/Ambulance Protection.*** Approve new development only if adequate staffing and facilities for fire/ambulance and police protection will be provided.



## **Honolulu - Land Use**



## 5. IMPLEMENTATION

Implementation of the East Honolulu *Sustainable* Communities Plan will be a challenge for the City's planners, engineers, other technical and policy level personnel as well as elected officials who determine the allocation of City resources. In contrast to its predecessor development plan, which functioned primarily as a regulatory guide and prerequisite for City zoning of parcels proposed for development, the East Honolulu *Sustainable* Communities Plan is oriented toward implementation on a broader scale. It now seeks to implement a vision for the future by providing wider guidance for decisions and actions related to land use, public facilities, and infrastructure, as well as for zoning matters. As a result, its provisions reflect the consultations with pertinent implementing agencies and community input which occurred throughout the planning process.

Many counties, cities and other local jurisdictions on the U.S. mainland have instituted comprehensive planning programs that emphasize proactive, community-based planning and implementation processes. These local governments have sought to establish a strong link between the planning policies and guidelines, and the specific organization, funding and actions needed to implement a variety of public and private projects and programs. Sections 5.1 through 5.7 are intended to strengthen the linkage to implementation to realize the vision for the future articulated in this Plan.

Implementation of the East Honolulu *Sustainable* Communities Plan will be accomplished by:

- Initiating zoning map and development code amendments to achieve consistency with the policies, principles, and guidelines of the *Sustainable* Communities Plan;
- Guiding public investment in infrastructure through functional plans which support the vision of the *Sustainable* Communities Plan;
- Recommending approval, approval with modifications or denial of developments seeking zoning and other development approvals based on how well they support the vision for East Honolulu's development;
- Incorporating *Sustainable* Communities Plan priorities through the Public Infrastructure Map and the City's annual budget process;
- Evaluating progress in fulfilling the vision of the East Honolulu *Sustainable* Communities Plan every two years and presenting the results of the evaluation in the Biennial Report; and
- Conducting a review of the vision, policies, principles, guidelines, and CIP priority investments of the East Honolulu *Sustainable* Communities Plan every five years and recommending revisions as necessary.

### 5.1 PUBLIC FACILITY INVESTMENT PRIORITIES

The vision for East Honolulu requires the cooperation of both public and private agencies in planning, financing, and improving infrastructure. The City must take an active role in planning infrastructure improvements, such as land acquisition and site improvements for parks in the Koko Head-Makapuu Head area, provision of adequate public access to the shoreline and mountain areas, provision of pedestrian, bicycle, and other transportation options, and establishment of a permanent Satellite City Hall.



## 5.2 DEVELOPMENT PRIORITIES

Projects to receive priority in the approval process are those which:

- Involve land acquisition and improvements for public projects that are consistent with the *Sustainable Communities Plan* vision, general policies, and planning principles;
- Involve applications for zoning and other regulatory approvals which are consistent with the *Sustainable Communities Plan* vision, general policies, and planning principles; and
- Are located on vacant usable parcels and are consistent with the vision of this Plan as illustrated on Map A-2, Urban Land Use.

## 5.3 SPECIAL AREA PLANS

Special Area Plans provide more detailed policies, principles, and guidelines than the *Sustainable Communities Plan* for areas requiring particular attention. The form and content of Special Area Plans depend on what characteristics and issues need to be addressed in greater detail in planning and guiding development or use of the Special Area.

Special Area Plans can be used to guide land use development and infrastructure investment in Special Districts, Redevelopment Districts, or Resource Areas. Plans for Special Districts would provide guidance for development and infrastructure investment in areas with distinct historic or design character or significant public views. Plans for Redevelopment Districts would provide strategies for the revitalization or redevelopment of an area. Plans for Resource Areas would provide resource management strategies for areas with particular natural or cultural resource values.

The 354-acre Ka Iwi scenic shoreline and the park on the Golf Course 5 and 6 sites mauka of Kalanianaʻole Highway in the Koko Crater-Makapuu Head area are identified for Special Area Plan status. These parks, shown in light green on Map A-3, Public Facilities in Appendix A, will be designated as a Resource Area, given their rich recreational, educational and scenic resources. The master plan for the Ka Iwi scenic shoreline, prepared by the State department of land and natural resources, should be used as the basis for the Special Area Plan. The master plan for the Golf Course 5 and 6 sites, to be prepared by the department of parks and recreation, should reflect uses and site development consistent with the intent to preserve the scenic qualities of this area. Land use and infrastructure policies, principles, and guidelines and other relevant sections from the Ka Iwi Special Area Plan should be submitted to the Planning Commission for public review and to the City Council for its consideration for adoption.

## 5.4 FUNCTIONAL PLANNING

Functional planning is the process through which various City agencies determine needs, assign priorities, phase projects, and propose project financing to further implement the vision articulated in the *Sustainable Communities Plan*. This process may take a variety of forms, depending upon the missions of the various agencies involved, as well as upon requirements imposed from outside the City structure, such as federal requirements for wastewater management planning. Typically, functional planning occurs as a continuous or iterative activity within each agency.

Through the functional planning process, City agencies responsible for developing and maintaining infrastructure and public facilities or for provision of City services review existing functional planning documents and programs.



As a result of these reviews, the agencies then update, if required, existing plans or prepare new long-range functional planning documents that address facilities and service system needs. Updates of functional planning documents are also conducted to assure that agency plans will serve to further implement the *Sustainable Communities Plan* as well as to provide adequate opportunity for coordination of plans and programs among the various agencies.

The number and types of functional planning documents will vary from agency to agency, as will the emphases and contents of those documents. A typical agency may develop a set of core documents such as:

- A resource-constrained long-range capital improvement program. A “resource-constrained” program is one which identifies the fiscal resources that can be reasonably expected to be available to finance the improvements.
- A long-range financing plan, with identification of necessary new revenue measures or opportunities.
- A development schedule with top priorities for areas designated for earliest development.
- Service and facility design standards, including level of service guidelines for determining adequacy.

Other documents may also be developed as part of an agency’s functional planning activities, such as master plans for provision of services to a specific region of the island. In some cases, functional planning activities will be undertaken in cooperation with agencies outside the City structure, such as the transportation planning activities that are conducted in association with the Oahu Metropolitan Planning Organization.

Functional planning is intended to be a proactive public involvement process which provides public access to information about infrastructure and public facility needs assessments, alternatives evaluations, and financing. Outreach activities should involve Neighborhood Boards, community organizations, landowners, and others who may be significantly affected by the public facilities and infrastructure projects or programs to be developed to further implement the policies of the *Sustainable Communities Plan*.

The functional planning process should be characterized by opportunities for early and continuing involvement, timely public notice, public access to information used in the evaluation of priorities, and the opportunity to suggest alternatives and to express preferences. The functional planning process provides the technical background for Capital Improvement Program and public policy proposals which are subject to review and approval by the City Council.

## **5.5 REVIEW OF ZONING AND OTHER DEVELOPMENT APPLICATIONS**

A primary way in which the vision of the East Honolulu *Sustainable Communities Plan* will guide land use will be through the review of applications for zone changes and other development approvals. Approval for all development projects should be based on the extent to which the project supports the policies, principles, and guidelines of the *Sustainable Communities Plan*.

Projects which do not involve significant zone changes will be reviewed by the department of planning and permitting for consistency with the policies, principles, and guidelines of the East Honolulu *Sustainable Communities Plan* during the Zone Change Application process. Those projects requiring environmental assessments will follow the provisions of Hawaii Revised Statutes, Chapter 343.



Projects involving significant zone changes will require an Environmental Assessment. This is submitted to the Department of Planning and Permitting for review prior to initiation of the first Zone Change Application.

#### **5.5.1 ADEQUATE FACILITIES REQUIREMENT**

All projects requesting zone changes shall be reviewed to determine if adequate public facilities and infrastructure will be available to meet the needs created as a result of the development. Level of Service Guidelines to define adequate public facilities and infrastructure requirements will be established during the Capital Improvement Program.

In order to guide development and growth in an orderly manner as required by the City's General Plan, zoning and other development approvals for new developments should be approved only if the responsible City and State agencies indicate that adequate public facilities and utilities will be available at the time of occupancy or if conditions the functional agency indicates are necessary to assure adequacy are otherwise sufficiently addressed.

The department of planning and permitting, as part of its report on the consistency of the project with the East Honolulu *Sustainable* Communities Plan vision, will review and summarize any individual agency's findings regarding public facilities and utilities adequacy which are raised as part of the EA/EIS process. The department of planning and permitting will address these findings and any additional agency comments submitted as part of the agency review of the zone change application and recommend conditions that should be included in the Unilateral Agreement or Development Agreement to insure adequacy of facilities.

#### **5.6 FIVE-YEAR DEVELOPMENT PLAN REVIEW**

The department of planning and permitting shall conduct a comprehensive review of the East Honolulu *Sustainable* Communities Plan and shall report its findings and recommended revisions to the Planning Commission and the City Council 5 years after adoption and every 5 years thereafter. It is intended the Urban Community, Agriculture and Preservation boundaries will remain fixed through the 2020 planning horizon; therefore, those boundaries will not be considered during the 5-Year reviews.

In the Five-Year review, the East Honolulu *Sustainable* Communities Plan will be evaluated to see if the regional vision, policies, principles, guidelines, and implementing actions are still appropriate.

#### **5.7 TRANSITION FROM THE CURRENT SYSTEM**

This section discusses the transition from the former Development Plan to this *Sustainable* Communities Plan, including its independence from Development Plan Common Provisions, its relationship to the General Plan guidelines, and the need for review and revision of development codes, standards, and regulations.

##### **5.7.1 DEVELOPMENT PLAN COMMON PROVISIONS AND EXISTING LAND USE APPROVALS**

This *Sustainable* Communities Plan will go into effect upon adoption by ordinance. At that time, the *Sustainable* Communities Plan will become a self contained document, not reliant on the Development Plan Common Provisions which formerly applied to the East Honolulu Development Plan as well as all the other Development Plans.

Land use approvals granted under existing zoning, Unilateral Agreements, and approved Urban Design Plans will remain in force and guide entitlement decisions until any zoning action to further implement the vision and policies



of the East Honolulu *Sustainable* Communities Plan is initiated. If an Environmental Assessment or Environmental Impact Statement (EA/EIS) was accepted in the course of a land use approval for a project, it should be acceptable to meet the requirement for an initial project EA/EIS when zone change applications are submitted for subsequent phases of the project unless the project scope and land uses are being significantly changed from that described in the initial EA/EIS.

#### 5.7.2 RELATION TO GENERAL PLAN POPULATION GUIDELINES

The East Honolulu *Sustainable* Communities Plan implements the General Plan population policies (in Population Objective C) as follows:

- Total potential population in the East Honolulu *Sustainable* Communities Plan Area will account for 4.6 percent to 5.5 percent of Oahu's total population in 2010. This relatively small share of the islandwide population is consistent with Population Objective C, Policy 1 and Policy 2, which is to facilitate the full development of the Primary Urban Center and encourage development within the Secondary Urban Center at Kapolei and the urban fringe areas of Ewa and Central Oahu.
- East Honolulu's total potential share of islandwide population in 2010 implements Population Objective C, Policy 3, which is to manage physical growth and development in the urban-fringe and rural areas so that an undesirable spreading of development is prevented and that the suburban and country character of these outlying areas can be maintained.
- The General Plan population share for East Honolulu according to Population Objective C, Policy 4, ranges from 5.3 percent to 5.8 percent, which is consistent with the projected population.

The General Plan population distribution guidelines will continue to be used as a guide to direct the pattern of growth and development in the East Honolulu *Sustainable* Communities Plan Area. Assessments of this performance will be reported in both the Biennial Report and in the 5-Year Review of the *Sustainable* Communities Plan.

Under the new East Honolulu *Sustainable* Communities Plan, projects will be evaluated against how well they fulfill the vision for East Honolulu set forth in the *Sustainable* Communities Plan and how closely they meet the policies, principles, and guidelines selected to implement that vision.

#### 5.7.3 REVIEW AND REVISION OF DEVELOPMENT CODES

Upon completion of the revision of all of Oahu's development plans, current regulatory codes and standards should be reviewed and revised, as necessary, to maintain their consistency and effectiveness as standards to guide attainment of the objectives and policies envisioned for all Development Plan areas. When such reviews are conducted, the following regulatory codes and standards may warrant further review and revision to ensure achievement of the vision for the East Honolulu region, as identified in this plan, as well as consistency with the East Honolulu *Sustainable* Communities Plan:

- **Land Use Ordinance.** (Chapter 21, Revised Ordinances of Honolulu). Zoning code standards and the zoning map for East Honolulu need to be revised to further implement the policies, principles, and guidelines in the *Sustainable* Communities Plan.



- ***Subdivision Rules and Regulations.*** (Department of Land Utilization, pursuant to Chapter 22, Revised Ordinances of Honolulu). Public right-of-way standards used for subdivision and consolidation of land need to be revised to reflect transportation policies, principles, and guidelines in the *Sustainable Communities Plan*.
- ***Traffic Standard Manual.*** (Department of Transportation Services, July 1976, as revised). Standards which are applied to local and most collector streets need to be revised to reflect transportation policies, principles, and guidelines in the *Sustainable Communities Plan*.
- ***State Highways Division Procedures Manual.*** Vol. 8, Chapter 5, Section 4 (State Department of Transportation). These State highway standards need to be reviewed to identify provisions which may conflict with the transportation policies, principles, and guidelines in the *Sustainable Communities Plan*.
- ***Standard Details for Public Works Construction*** (Honolulu Department of Public Works with Kauai, Maui, and Hawaii County Departments of Public Works, September 1984). Engineering standards for the dedication of public works construction need to be revised to reflect *Sustainable Communities Plan* principles and guidelines.
- ***Storm Drainage Standards*** (Department of Public Works, March 1986). Standards for the dedication of drainage systems to incorporate retention basins and the use of v-shaped bottom channels, rip-rap boulder lining of stream banks, and streamside vegetation into the design need to be created to further implement the *Sustainable Communities Plan* policies, principles, and guidelines for open space.
- ***Park Dedication Rules and Regulations*** (Department of Planning and Permitting, pursuant to Chapter 22, Article 7, Revised Ordinances of Honolulu). Regulations need to be reviewed to determine if passive drainage systems which are designed for recreation use should count toward park dedication requirements, especially in cases where the area would exceed the amount of land that would be required under current rules and regulations.
- ***Wastewater Management Design Standards*** (Department of Environmental Services Design Standards, Volumes I and II) and the 1990 Revised Ordinances of Honolulu, Chapter 14 (relating to sewer services). These standards and ordinances may require review to further implement *Sustainable Communities Plan* policies and guidelines.



## APPENDIX A: CONCEPTUAL MAPS

This appendix includes three primary conceptual maps used to illustrate the vision for East Honolulu's future development. The maps include:

Map A-1: Open Space  
Map A-2: Urban Land Use  
Map A-3: Public Facilities

These maps illustrate the long-range vision of the future of the plan area and the major land use, open space, and public facility policies that are articulated in the plan. In examining these maps the reader should keep in mind that:

1. These maps are intended to be general and conceptual; and
2. They are intended to be illustrative of the plan's policy statements.

The plan's textual policy statements, which appear within the body of the plan, are considered to be the most important elements of the plan. The maps are provided merely as illustrations of those policies. If there are any conflicts between the maps and the text of the plan, the text shall prevail.

Each of these three maps depicts the three boundary areas found in East Honolulu. The intention and extent of each boundary are briefly described below, followed by capsulized descriptions of each of the three maps.

### A.1 URBAN COMMUNITY BOUNDARY

The Urban Community Boundary (UCB) is intended to define and contain the extent of developed or "built-up" areas of East Honolulu's urban fringe communities. Its purpose is to provide an adequate supply of land to support the region's established suburban communities while protecting lands outside the boundary for agricultural and open space preservation values. Areas within the UCB are generally characterized by extensive tracts of residential or commercial development clearly distinguishable from the undeveloped or more "natural" portions of the region.

In East Honolulu, the UCB is generally coterminous with the State Urban District boundary, but excludes the following areas of the State Urban District:

- Areas that are committed to agricultural use by long-term leases (i.e., the farm lot subdivisions in Kamilonui Valley and adjacent to Kaiser High School);
- Undeveloped areas in Kamilonui Valley that are adjacent to existing agricultural uses;
- Large tracts of undeveloped lands at higher elevations that are prominently visible from the coastal highway or other public areas and are desirable natural scenic features; and
- Significant undeveloped Urban District land areas that are identified as suspect areas for land movement.



## **A.2 AGRICULTURE BOUNDARY**

The Agriculture Boundary is established to protect the region's agricultural lands for their economic and open space values. The primary use of all lands within the Agriculture Boundary must be agriculture or directly supportive of the agriculture industry.

Two areas in Hawaii Kai are placed within the Agriculture Boundary to recognize agricultural lots whose lease terms extend beyond 2020 (i.e., the farm lot subdivisions in Kamilonui Valley and adjacent to Kaiser High School). In addition, undeveloped areas in Kamilonui Valley which are adjacent to existing agricultural uses are placed within the Agriculture Boundary. Preventing the encroachment of suburban residential development within and surrounding the existing subdivisions supports active use of these lots for agricultural purposes.

## **A.3 PRESERVATION BOUNDARY**

The Preservation Boundary is established to protect undeveloped lands which form an important part of the region's open space fabric, but that are not valued primarily for agricultural uses. Such lands include important wildlife habitat, archaeological or historic sites, significant landforms or landscapes over which significant views are available, and development-related hazard areas.

The Preservation Boundary generally circumscribes undeveloped lands that:

- Are necessary for the protection of watersheds, water resources and water supplies;
- Are necessary for the conservation, preservation and enhancement of sites with scenic, historic, archaeological or ecological significance;
- Are necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish and wildlife, for forestry, and other activities related to these uses;
- Are located at an elevation below the maximum inland line of the zone of wave action, and marine waters, fishponds, and tidepools unless otherwise designated;
- Are generally characterized by topography, soils, climate or other related environmental factors that may not be normally adaptable or presently needed for urban community or agriculture use;
- Have general slopes of 20 percent or more which provide for open space amenities and/or scenic values;
- Are susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the land's susceptibility to landslides or inundation by tsunami and flooding or both;
- Are used for State or city parks outside the Urban Community Boundary; or
- Are suitable for growing commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when such facilities are compatible with the natural and physical environment.



The Preservation Boundary excludes such features, sites or areas located within the Urban Community or Agriculture boundaries.

#### A.4 MAP A-1: OPEN SPACE

This map is intended to illustrate the region's major open space patterns and resources as outlined in Chapter 3. It highlights major open space elements and resources, including agricultural and preservation lands, major recreational parks and golf courses, the Hawaii Kai marina, important "panoramic" views, and important boundaries.

This map also indicates the general locations of community and neighborhood parks, public access points along the shoreline, and major trails providing mountain access.

#### A.5 MAP A-2: URBAN LAND USE

Map A-2 illustrates the desired long-range urban land use pattern for East Honolulu, i.e., the land use pattern that will be realized through implementation of the East Honolulu *Sustainable* Communities Plan. The map illustrates the following plan elements within the Urban Community Boundary:

- *Residential and Low-Density Apartment.* These uses are depicted as a single tone yellow tone. "Residential" generally refers to single-family detached and attached houses or townhouses with individual exterior entries. "Low-density apartment" generally refers to low-density, low-rise multi-family residences, including townhouses, stacked flats and apartment buildings. Dwelling units in these buildings may share a common exterior entry. It is intended that "residential" housing types will generally be found in the residential zoning districts, and "low-density apartment" housing types will generally be found in the apartment zoning districts.
- *Medium-Density Apartment.* These uses are depicted as a brown-orange tone. "Medium-density apartment" generally refers to mid- to high-rise multifamily residential projects. In East Honolulu, it is intended that this designation will be applied only to areas developed consistent with this pattern as of the effective date of the East Honolulu *Sustainable* Communities Plan.\*
- *Neighborhood Commercial Center.* These centers are depicted with red dots, and generally represent clusters of commercial establishments intended for neighborhood service. Uses typically include grocery and sundry stores and other services and shops catering to common household- or neighborhood-level convenience items.
- *Regional Town Center.* The regional town center for East Honolulu is comprised of the three commercial centers adjoining Hawaii Kai Marina: Hawaii Kai Shopping Center, Hawaii Kai Towne Center, and Koko Marina Shopping Center. These centers are depicted as red shapes.
- *Resort.* The region's only resort use, the Kahala Hotel, is depicted as a pink shape.
- *Public Facilities.* The wastewater treatment plant and the public intermediate and high schools are depicted with appropriate symbols, and shown primarily to provide points of orientation.

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\**Editor's note:*

"The effective date of the East Honolulu Sustainable Communities Plan" is July 27, 1999.

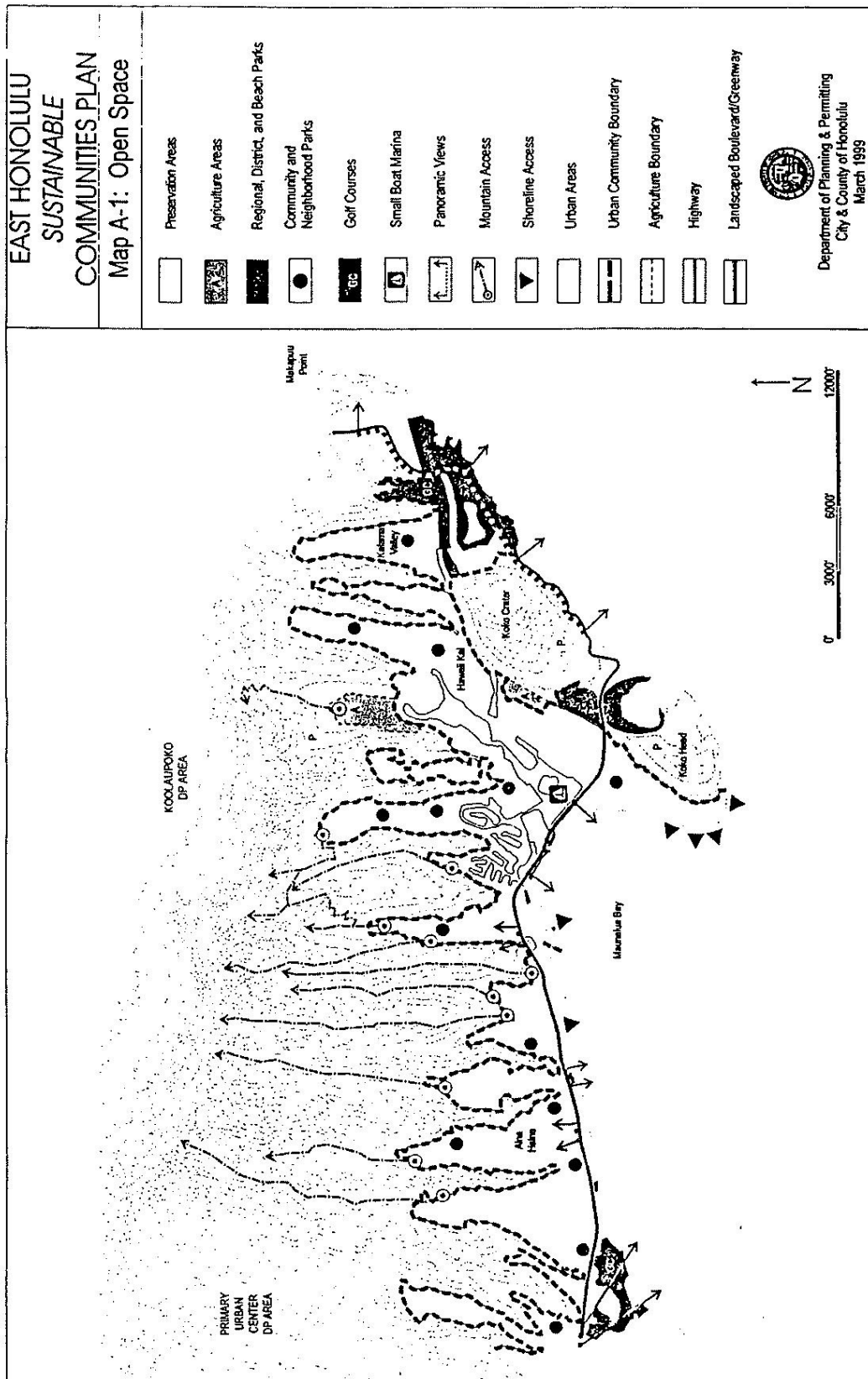


In addition, this map depicts the Hawaii Kai marina as a series of connected light blue shapes.

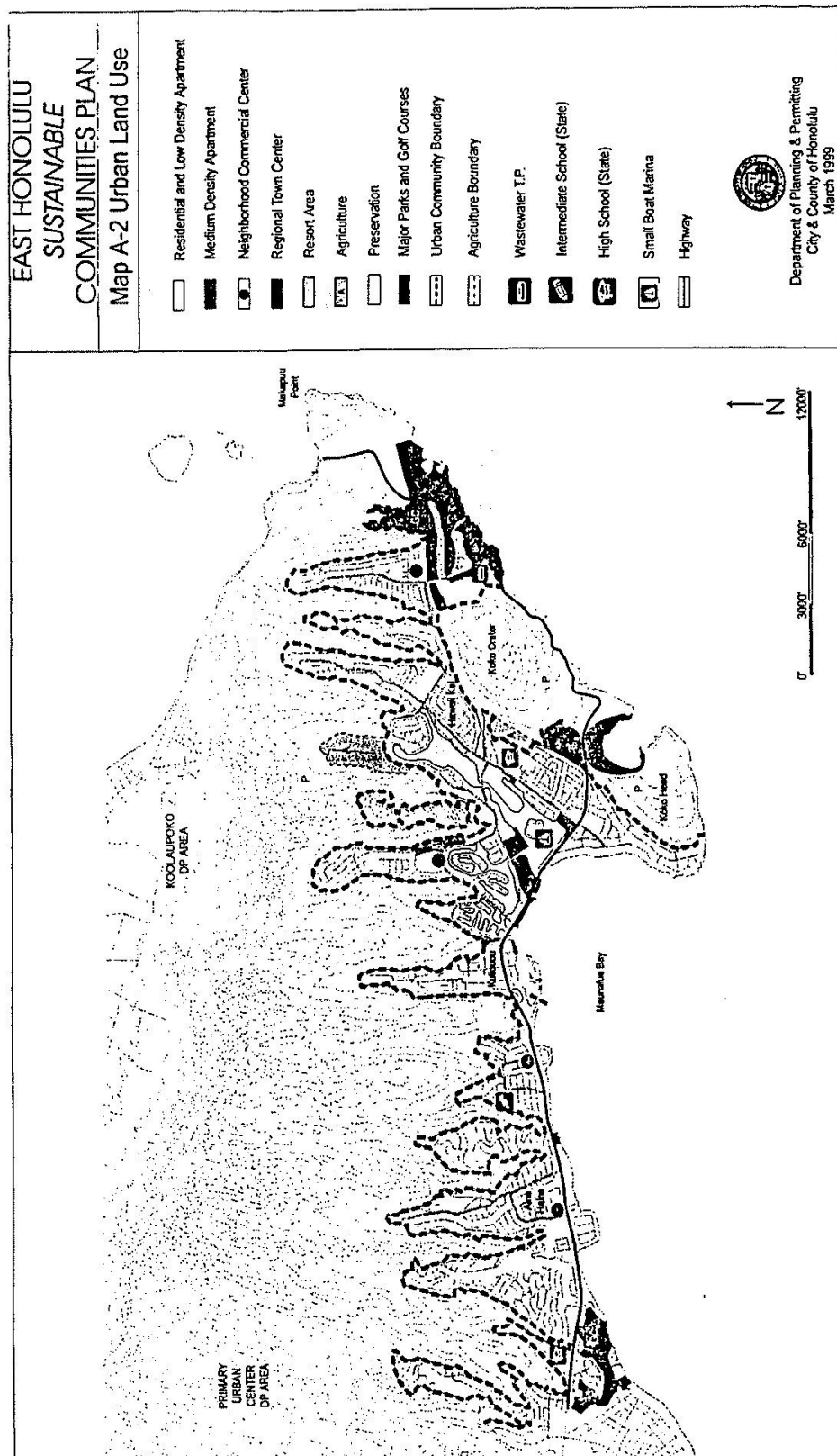
**A.6      MAP A-3: PUBLIC FACILITIES**

Map A-3 illustrates major existing and future public facilities and major privately owned facilities including the golf course at the Waialae Country Club. Its purpose is to display the public resources or assets available within the region.

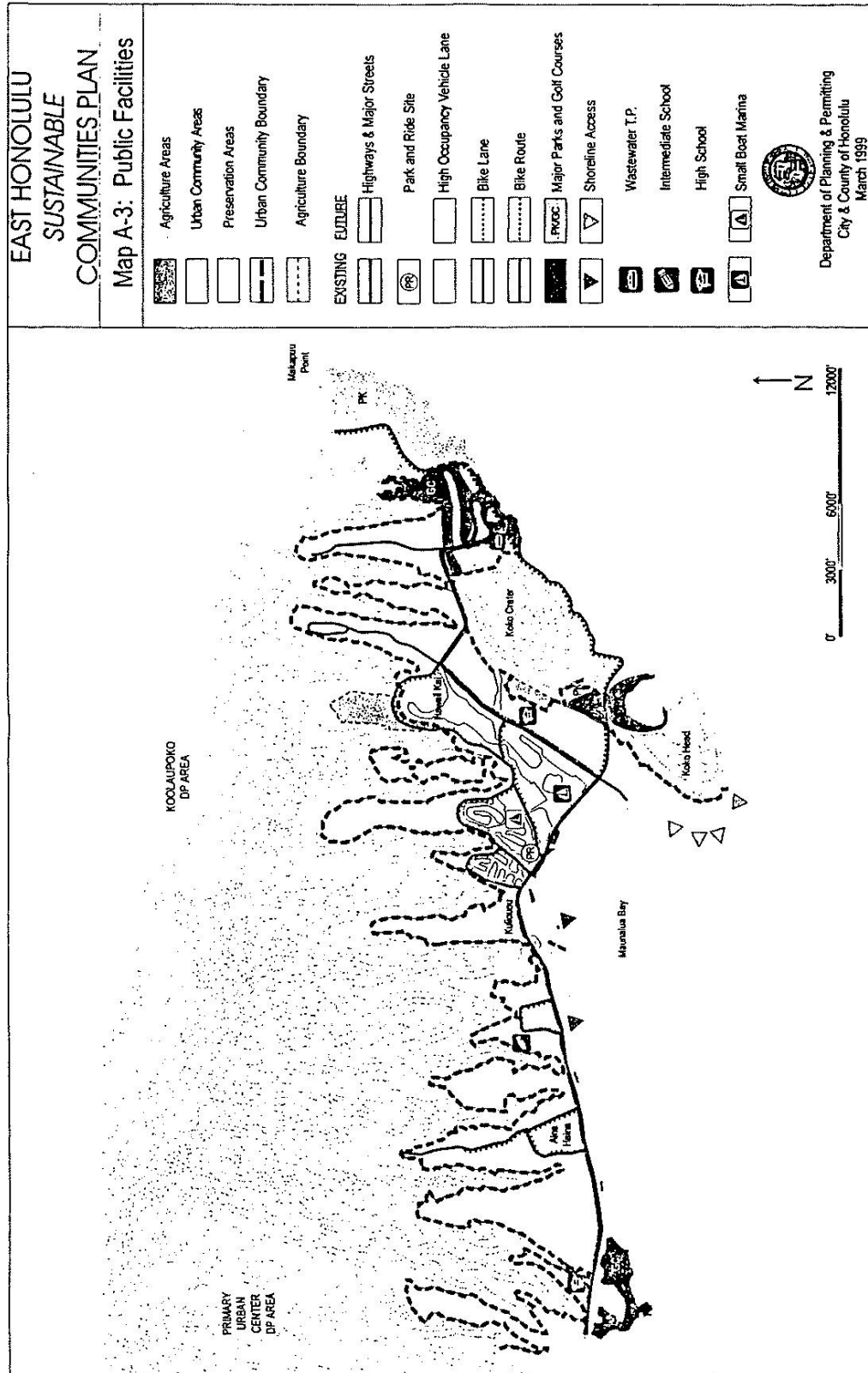




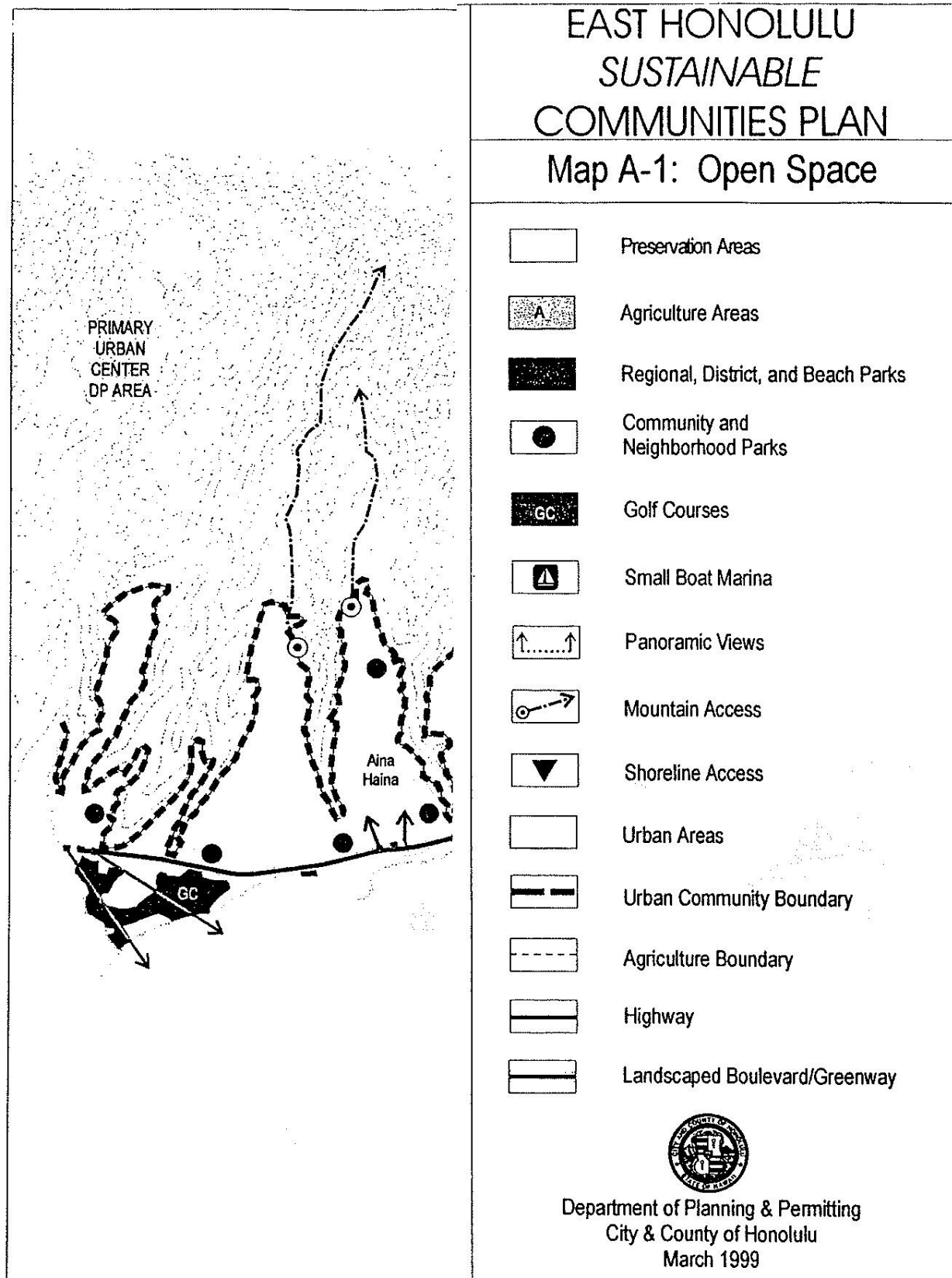




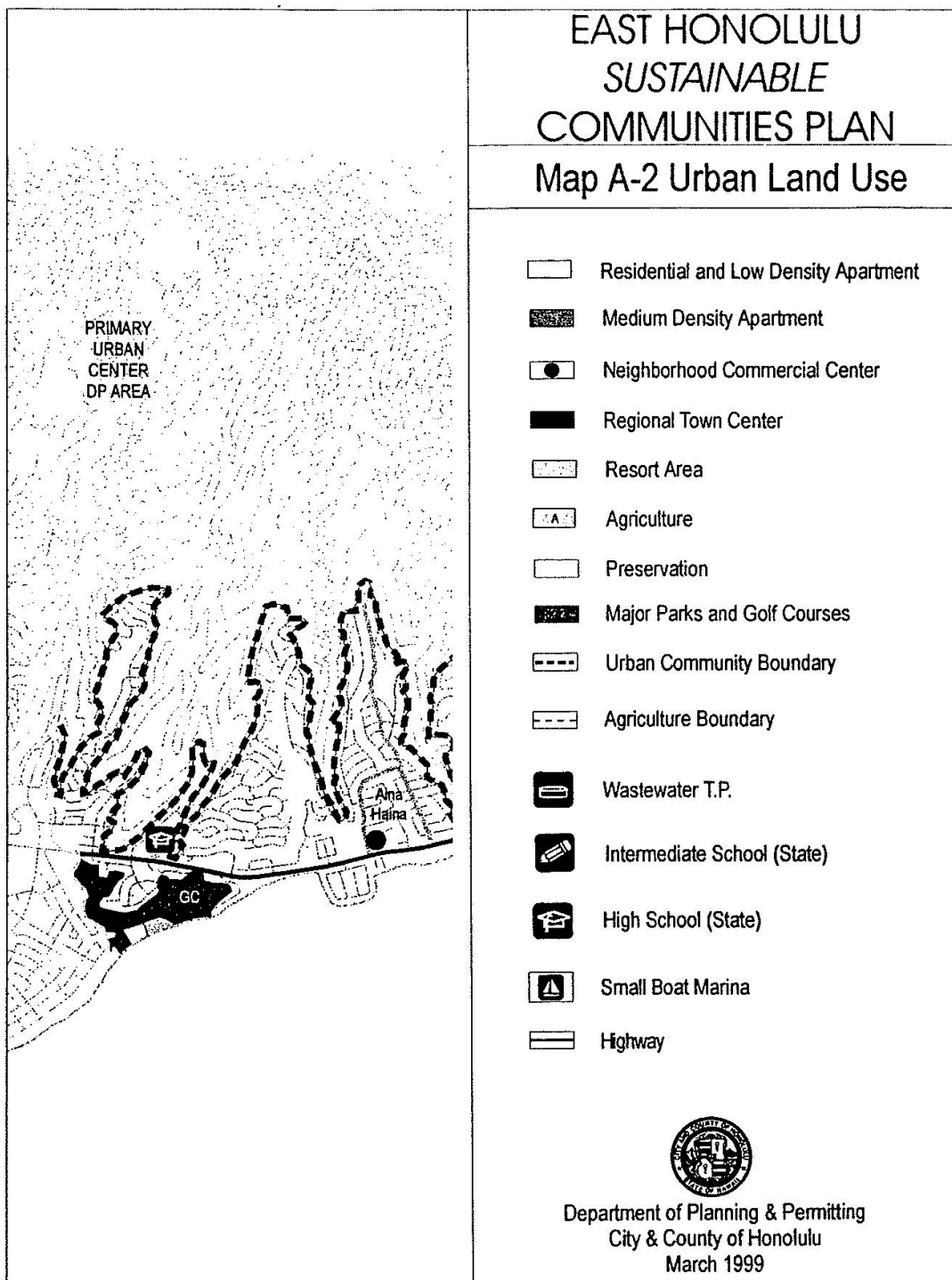




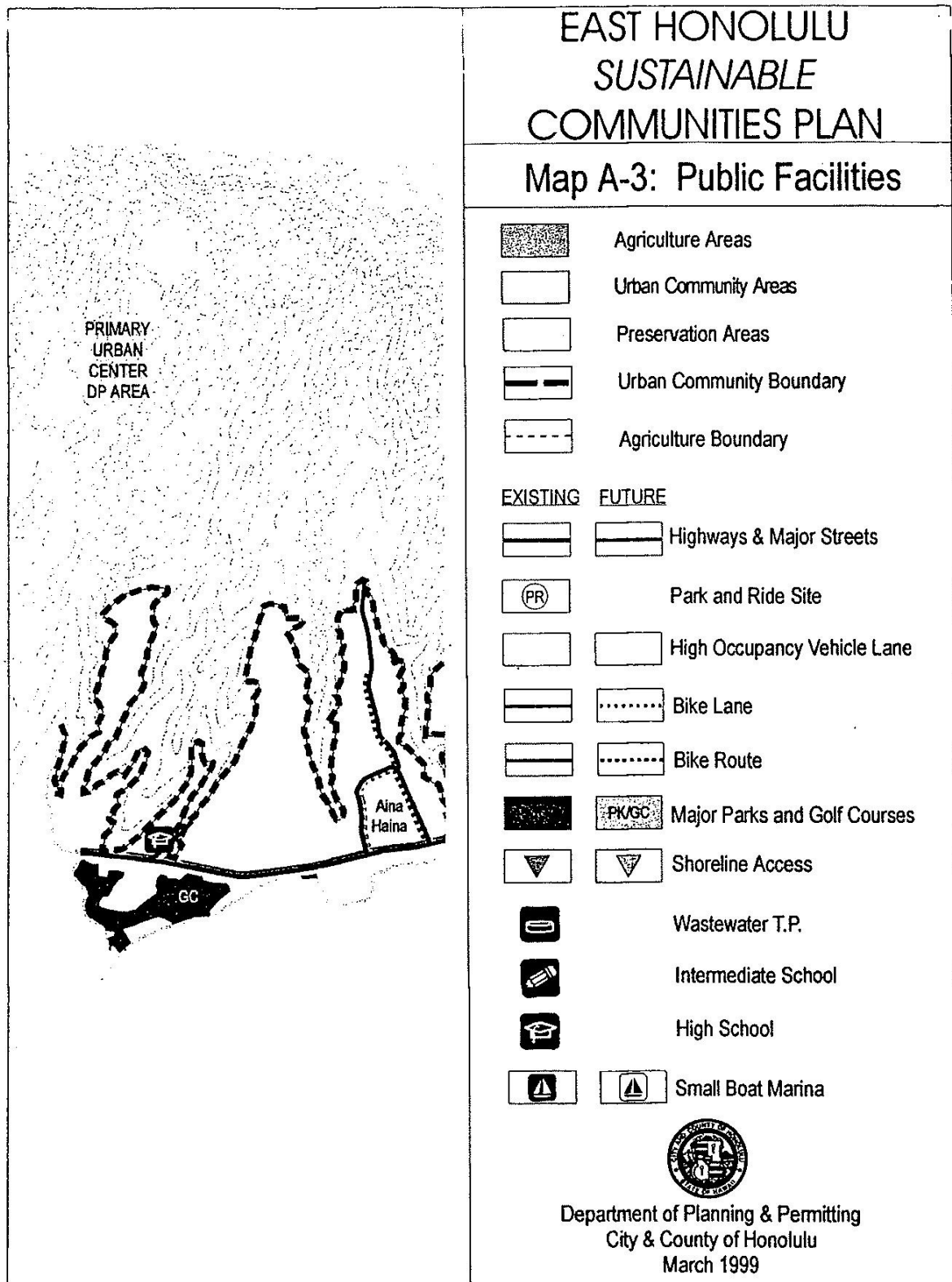














## ARTICLE 5: CENTRAL OAHU\*

### Sections

- 24-5.1 Definitions
- 24-5.2 Applicability and intent
- 24-5.3 Adoption of the Central Oahu sustainable communities plan
- 24-5.4 Existing zoning and subdivision ordinances
- 24-5.5 Consistency
- 24-5.6 Implementation
- 24-5.7 Zoning change applications
- 24-5.8 Review of development and other applications
- 24-5.9 Annual capital improvement program review
- 24-5.10 Five-year review
- 24-5.11 Biennial report
- 24-5.12 Authority
- 24-5.13 Severability
- 24-5.14 Conflicting provisions

### § 24-5.1 Definitions.

Unless the context otherwise requires, the definitions contained in this section govern the construction of this article and the Central Oahu sustainable communities plan.

***Charter.*** The Revised Charter of the City and County of Honolulu 1973, as amended.

***City.*** The City and County of Honolulu.

***Council.*** The city council of the City and County of Honolulu.

***County.*** The City and County of Honolulu.

***Department* or *Department of Planning and Permitting.*** The department of planning and permitting of the City and County of Honolulu.

***Development.*** Any public improvement project, or any public or private project requiring a zoning map amendment.

***Development Plan* or *Sustainable Communities Plan.*** A plan document for a given geographic area which consists of conceptual schemes for implementing and accomplishing the development objectives and policies of the general plan for the several parts of the City and County of Honolulu.



**Director.** The director of planning and permitting.

**Environmental Assessment** and **EA.** A written evaluation prepared in compliance with the environmental quality commission's procedural rules implementing HRS Chapter 343 to determine whether an action may have a significant environmental effect.

**Environmental Impact Statement** and **EIS.** An informational document prepared in compliance with the environmental quality commission's procedural rules implementing HRS Chapter 343; and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic and social welfare of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

**Finding of No Significant Impact** and **FONSI.** A determination based on an environmental assessment that the subject action will not have a significant effect and, therefore, will not require the preparation of an environmental impact statement.

**Functional Plan.** The public facility and infrastructure plans prepared by public agencies to further implement the vision, policies, principles, and guidelines set forth in the Central Oahu sustainable communities plan.

**General Plan.** The general plan of the City and County of Honolulu as defined by Charter § 6-1508.

**Hawaii Revised Statutes** or **HRS.** Hawaii Revised Statutes, as amended.

**Planning Commission.** The planning commission of the City and County of Honolulu.

**Project Master Plan.** A conceptual plan that covers all phases of a development project. The project master plan shall be that portion of an EA or EIS which illustrates and describes how the project conforms to the vision for Central Oahu, and the relevant policies, principles, and guidelines for the site, the surrounding lands, and the region.

**Revised Ordinances of Honolulu** or **ROH.** Revised Ordinances of Honolulu, as amended.

**Significant Zone Change.** A zone change which involves at least one of the following:

- (1) Any change in zoning of 25 or more acres of land to any zoning district or combination of zoning districts, excluding preservation or agricultural zoning districts;
- (2) Any change in zoning of more than 10 acres to a residential or country zoning district;
- (3) Any change in zoning of more than five acres to an apartment, resort, commercial, industrial or mixed use zoning district; or
- (4) Any development which would have a major social, environmental, or policy impact, or major cumulative impacts due to a series of applications in the same area.

**Special Area.** A designated area within the Central Oahu sustainable communities plan area that requires more detailed planning efforts beyond what is contained in the Central Oahu sustainable communities plan.



***Special Area Plan.*** A plan for a special area.

***Unilateral Agreement.*** A conditional zoning agreement made pursuant to the city's land use ordinance as part of the process of enactment of an ordinance for a zone change and that imposes conditions on a landowner's or developer's use of the property.

(1990 Code, Ch. 24, Art. 5, § 24-5.1) (Added by Ord. 02-62)

#### **§ 24-5.2 Applicability and intent.**

- (a) The Central Oahu sustainable communities plan area encompasses the upland plateau between the Waianae and the Koolau Mountain Ranges. The area includes the towns of Waipahu, Mililani, and Wahiawa and their surrounding communities.
  - (b) It is the intent of the Central Oahu sustainable communities plan to provide a guide for orderly and coordinated public and private sector development in the Central Oahu sustainable communities plan area in a manner that is consistent with applicable general plan provisions, including the designation of Central Oahu as an urban fringe area which is to be developed to relieve development pressures in the remaining urban-fringe and rural areas and to meet housing needs not readily provided in the primary urban center.
  - (c) This article and the Central Oahu sustainable communities plan are not regulatory. Rather, they are established with the explicit intent of providing a coherent vision to guide resource protection and land use within Central Oahu. This article shall guide any development for Central Oahu, public investment in infrastructure, zoning and other regulatory procedures, and the preparation of the city's annual capital improvement program budget.
- (1990 Code, Ch. 24, Art. 5, § 24-5.2) (Added by Ord. 02-62)

#### **§ 24-5.3 Adoption of the Central Oahu sustainable communities plan.**

- (a) This article is adopted pursuant to Charter § 6-1509 and provides a self-contained sustainable communities plan document for Central Oahu. Upon enactment of this article, all proposed developments will be evaluated against how well they fulfill the vision for Central Oahu enunciated in the Central Oahu sustainable communities plan and how closely they meet the policies, principles, and guidelines selected to implement that vision.
- (b) The plan entitled "Central Oahu Sustainable Communities Plan," attached as an exhibit to this ordinance, is adopted by reference and made part of this article.
- (c) Chapter 24, Article 1, entitled "Development Plan Common Provisions," in its entirety is no longer applicable to the Central Oahu plan area. The Central Oahu sustainable communities plan, as adopted by reference by this ordinance, supersedes any and all common provisions previously applicable to the Central Oahu area.
- (d) Ordinance 83-7, as amended, entitled, "Article 5, Central Oahu: Part I Development Plan Special Provisions for Central Oahu," and "Part II Development Plan Maps (Land Use and Public Facilities Maps) for Central Oahu," is repealed in its entirety.



(e) Notwithstanding Section 2 of this ordinance and subsection (d) of this section:

- (1) Those provisions of Chapter 24, Article 1, relating to development plan public facilities maps;
- (2) Those provisions of Ordinance 83-7, as amended, relating to the development plan public facilities map for Central Oahu; and
- (3) The development plan public facilities map for Central Oahu, as amended;

shall remain in force and effect until such time as the public infrastructure map for Central Oahu is adopted in accordance with Chapter 4, Article 8.

(1990 Code, Ch. 24, Art. 5, § 24-5.3) (Added by Ord. 02-62)

**§ 24-5.4 Existing zoning and subdivision ordinances.**

- (a) All existing subdivisions and zoning approved before February 18, 2003\* for projects, including but not limited to those subject to unilateral agreements, shall continue to remain in effect following February 18, 2003.\*
- (b) Subdivision and zoning ordinances applicable to the Central Oahu sustainable communities plan area enacted before February 18, 2003\* shall continue to regulate the use of land within the demarcated zones of the Central Oahu sustainable communities plan area until such time as the subdivision and zoning ordinances may be amended to be consistent with the Central Oahu sustainable communities plan.
- (c) Notwithstanding adoption of the Central Oahu sustainable communities plan, application for subdivision actions and land use permits accepted by the department for processing before February 18, 2003\* shall continue to be subject only to applicable ordinances and rules in effect when the application is accepted for processing.

(1990 Code, Ch. 24, Art. 5, § 24-5.4) (Added by Ord. 02-62)

***Editor's note:***

*\* "February 18, 2003" is substituted for "the effective date of this ordinance."*

**§ 24-5.5 Consistency.**

- (a) The performance of prescribed powers, duties, and functions by all city agencies shall conform to and implement the policies and provisions of this article. Pursuant to Charter § 6-1511.3, public improvement projects and subdivision and zoning ordinances shall be consistent with the Central Oahu sustainable communities plan.
- (b) Any questions of interpretation regarding the consistency of a proposed development with the Central Oahu sustainable communities plan and the objectives and policies of the general plan shall ultimately be resolved by the council.



- (c) In determining whether a proposed development is consistent with the Central Oahu sustainable communities plan, the responsible agency shall primarily take into consideration the extent to which the development is consistent with the vision, policies, principles, and guidelines set forth in the Central Oahu sustainable communities plan.
  - (d) Whenever there is a question regarding consistency between existing subdivision or zoning ordinances, including any unilateral agreements, and the Central Oahu sustainable communities plan, the existing subdivision or zoning ordinances shall prevail until such time as they may be amended to be consistent with the Central Oahu sustainable communities plan.
- (1990 Code, Ch. 24, Art. 5, § 24-5.5) (Added by Ord. 02-62)

#### **§ 24-5.6 Implementation.**

Implementation of this article relating to the Central Oahu sustainable communities plan will be accomplished by the following:

- (1) Initiating zoning map and development code amendments to achieve consistency with the policies, principles, and guidelines of the Central Oahu sustainable communities plan;
- (2) Guiding development in the special areas of Waipahu and Wahiawa through the special area plans for each area;
- (3) Guiding public investment in infrastructure through functional plans which support the vision of the Central Oahu sustainable communities plan;
- (4) Recommending approval, approval with modifications or denial of developments seeking zoning and other development approvals based on how well they support the vision of the Central Oahu sustainable communities plan;
- (5) Incorporating Central Oahu sustainable communities plan priorities through the public infrastructure map and the city's annual budget process;
- (6) Evaluating progress in achieving the vision of the Central Oahu sustainable communities plan periodically and presenting the results of the evaluation in the biennial report which is required by Charter § 6-1510.4; and
- (7) Reviewing the vision of the Central Oahu sustainable communities plan every five years and revising, as necessary, on the basis of that review, the policies, guidelines, and capital improvement program investments therein.

(1990 Code, Ch. 24, Art. 5, § 24-5.6) (Added by Ord. 02-62)

#### **§ 24-5.7 Zoning change applications.**

- (a) All zone change applications relating to land in the Central Oahu sustainable communities plan area will be reviewed by the department for consistency with the general plan, the Central Oahu sustainable communities plan, and any applicable special area plan.



- (1) The director will recommend either approval, approval with changes, or denial. The director's written review of the application shall become part of the zone change report which will be sent to the planning commission and the city council.
- (2) A project master plan shall be a part of an EA or EIS for any project involving 25 acres or more of land. The director shall review the project master plan for its consistency with the Central Oahu sustainable communities plan.
- (3) Any development or phase of a development already covered by a project master plan which has been fully reviewed under this article shall not require a new project master plan; provided that the director determines that the proposed zone change is generally consistent with the existing project master plan for the affected area.
- (4) If a final EIS has already been accepted for a development, including one accepted before February 18, 2003,\* then a subsequent project master plan shall not be required for the development.
- (b) For projects which involve a significant zone change, an environmental assessment shall be submitted to the department. Any development or phase of a development which has already been assessed under the National Environmental Policy Act, HRS Chapter 343, ROH Chapter 25, or this article, and for which a FONSI has been filed or a required EIS has been accepted, shall not be subject to further EA or EIS requirements under this chapter.
- (c) The environmental assessment will be reviewed by the department. Based on review of the environmental assessment, the director will determine whether an environmental impact statement will be required or whether a FONSI may be issued.
- (d) Zone changes shall be processed in accordance with this section, Section 5.4 of the Central Oahu sustainable communities plan, and Chapter 21.

(1990 Code, Ch. 24, Art. 5, § 24-5.7) (Added by Ord. 02-62)

***Editor's note:***

*\* "February 18, 2003" is substituted for "the effective date of this ordinance."*

**§ 24-5.8 Review of development and other applications.**

The review of applications for zone changes and other development approvals will be guided by the vision of the Central Oahu sustainable communities plan. Decisions on all proposed developments shall be based on the extent to which the project enabled by the development approval supports the policies, principles, and guidelines of the Central Oahu sustainable communities plan.

The director may review other applications for improvements to land to help the responsible agency determine whether a proposed improvement supports the policies, principles, and guidelines of the Central Oahu sustainable communities plan.

(1990 Code, Ch. 24, Art. 5, § 24-5.8) (Added by Ord. 02-62)



**§ 24-5.9 Annual capital improvement program review.**

Annually, the director shall work jointly with the director of budget and fiscal services and the applicable city agencies to review all projects in the city's capital improvement program and budget for compliance and consistency with the general plan, the Central Oahu sustainable communities plan and other development and sustainable communities plans, any applicable special area plans, and appropriate functional plans. The director will prepare a written report of findings to the council.

(1990 Code, Ch. 24, Art. 5, § 24-5.9) (Added by Ord. 02-62)

**§ 24-5.10 Five-year review.**

- (a) The department shall conduct a comprehensive review of the Central Oahu sustainable communities plan every five years after February 18, 2003\* and shall report its findings and recommended revisions to the city council.
- (b) The Central Oahu sustainable communities plan will be evaluated to assess the appropriateness of the plan's regional vision, policies, design principles and guidelines, and implementing actions, as well as its consistency with the general plan.
- (c) Nothing in this section shall be construed as prohibiting the processing of a revision to the Central Oahu sustainable communities plan in accordance with the Charter.

(1990 Code, Ch. 24, Art. 5, § 24-5.10) (Added by Ord. 02-62)

***Editor's note:***

*\* "February 18, 2003" is substituted for "the effective date of this ordinance."*

**§ 24-5.11 Biennial report.**

In addition to meeting the requirements of Charter § 6-1510.4, the department of planning and permitting's biennial report shall also address the county's achievements and progress in fulfilling the vision of the Central Oahu sustainable communities plan.

(1990 Code, Ch. 24, Art. 5, § 24-5.11) (Added by Ord. 02-62)

**§ 24-5.12 Authority.**

Nothing in this article shall be construed as an abridgement or delegation of the responsibility of the director, or of the inherent legislative power of the city council, to review or revise the Central Oahu sustainable communities plan pursuant to the charter and the above procedures.

(1990 Code, Ch. 24, Art. 5, § 24-5.12) (Added by Ord. 02-62)



**§ 24-5.13 Severability.**

If this article or the application thereof to any person or property or circumstances is held invalid, such invalidity shall not affect other provisions or applications of this article which can be given effect without the invalid provision or application, and to this end the provisions of this article are declared to be severable.  
(1990 Code, Ch. 24, Art. 5, § 24-5.13) (Added by Ord. 02-62)

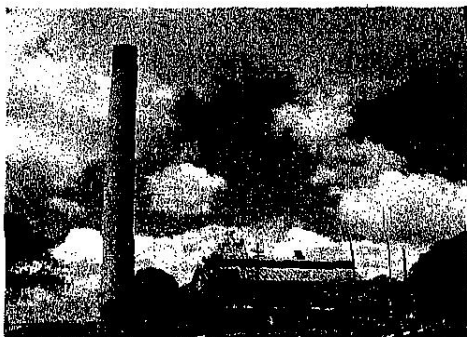
**§ 24-5.14 Conflicting provisions.**

This article shall, with respect to the Central Oahu sustainable communities plan area, prevail should there be any conflict with the common provisions or any other provisions under Chapter 24.  
(1990 Code, Ch. 24, Art. 5, § 24-5.14) (Added by Ord. 02-62)





# Central Oahu Sustainable Communities Plan



Department of Planning and Permitting  
Honorable Jeremy Harris, Mayor  
December 2002 Bill 26 (02) CD1, FD1

OFFICE OF THE CITY CLERK  
EFFECTIVE DATE: FEBRUARY 18, 2003





## **Honolulu - Land Use**



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**PREFACE AND EXECUTIVE SUMMARY****PREFACE**

The Central Oahu *Sustainable* Communities Plan has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes. It is one of a set of eight community-oriented plans intended to help guide public policy, investment, and decision-making over the next 25 years. Each plan addresses one of eight planning regions of Oahu, responding to specific conditions and community values of each region. The map on the following page illustrates these planning regions.

Of the eight documents, the plans for Ewa and the Primary Urban Center, to which growth and supporting facilities will be directed over the next 25 years, have been entitled “Development Plans.” They will be the policy guide to development decisions and actions needed to support that growth.

Plans for the remaining six areas, which are envisioned as relatively stable regions for which public actions will focus on supporting existing populations, have been entitled “Sustainable Communities Plans” in order to appropriately indicate their intent.

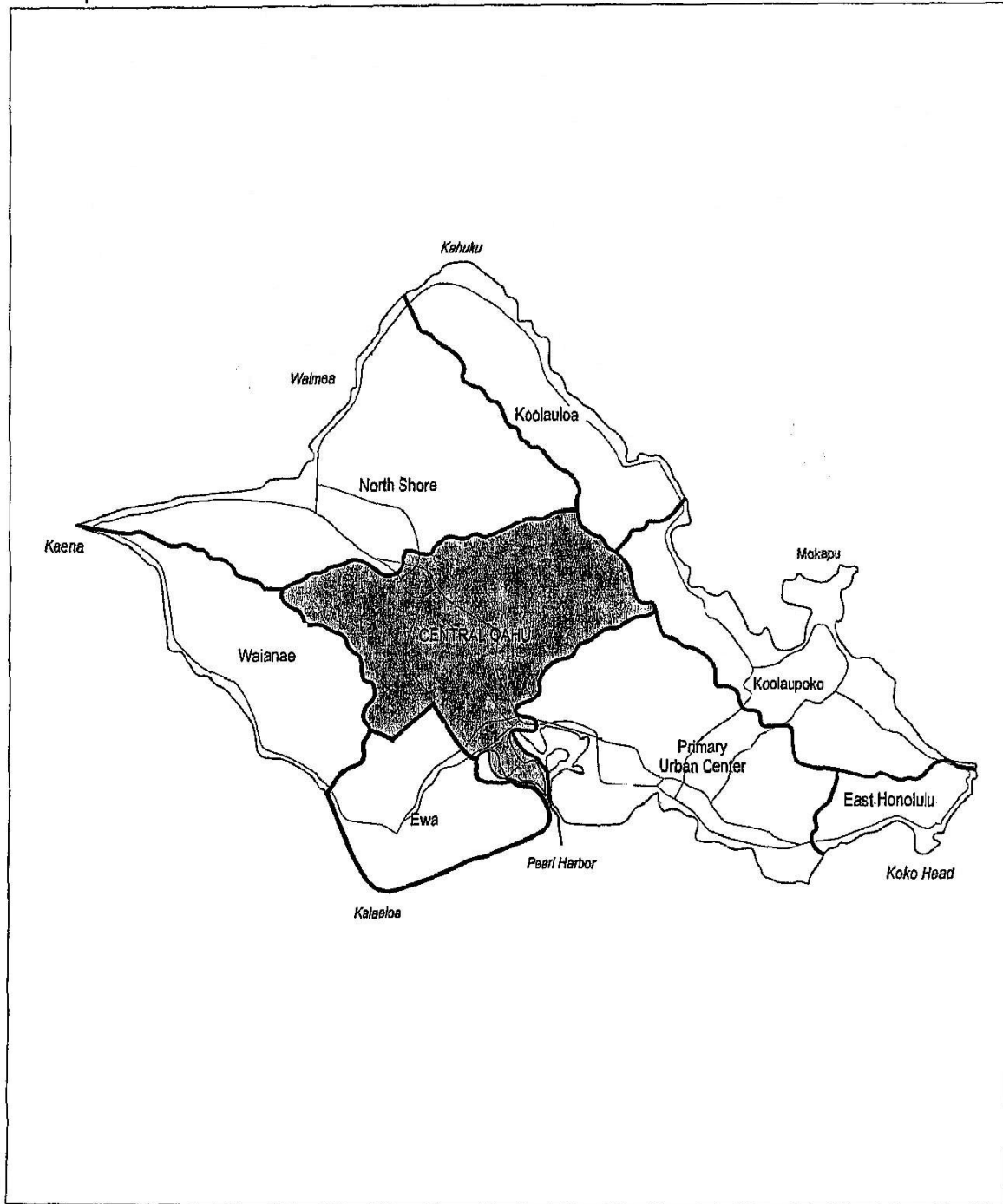
Central Oahu is a *Sustainable* Communities Plan area. The Plan’s vision statement and implementing policies support sustaining Central Oahu’s unique character, lifestyle, and economic opportunities by focusing future residential development on master planned suburban communities within an Urban Community Boundary and on redevelopment around two transit centers in Waipahu.

The General Plan calls for development to be “encouraged” in Central Oahu and Ewa urban-fringe (suburban residential) areas and in the Kapolei urban center in order to “relieve development pressures” on the East Honolulu, Windward, North Shore, and Waianae areas and to “meet housing needs not readily provided in the primary urban center.”



**Exhibit ES-1**

**Development Plan and Sustainable Communities Plan Areas for Oahu**





## THE *SUSTAINABLE* COMMUNITIES PLAN PROCESS

This document is the culmination of a planning effort led by the City and County of Honolulu's planning department and its successor agency, the department of planning and permitting. This effort comprised a process that encouraged and enabled significant involvement from the region's neighborhood boards, community associations, groups of business leaders, religious and cultural organizations, private landowners, institutions and numerous individuals.

In its final form, the Plan incorporates input received from public outreach, review and comment received through a variety of formats since 1993.

## THE HONOLULU LAND USE PLANNING AND MANAGEMENT SYSTEM

The City and County of Honolulu guides and directs land use and growth through a three-tier system of objectives, policies, planning principles, guidelines and regulations. The **General Plan** forms the first tier of this system. First adopted by resolution in 1977, the General Plan is a relatively brief document, consisting primarily of one-sentence statements of objectives and policies. It has been amended several times, but the basic objectives and policies set forth in the 1977 plan remain intact.

The second tier of the system is formed by the **Development Plans**, which are adopted and revised by ordinance. These plans address eight geographic regions of the island, including the Primary Urban Center, East Honolulu, Central Oahu, Ewa, Waianae, North Shore, Koolauloa and Koolauoko. Under the current revision program, the Primary Urban Center and Ewa retain the title "Development Plan." The other regions are now referred to as "*Sustainable Community Plans*" to reflect their policy intent.

The third tier of the system is composed of the **implementing ordinances and regulations**, including the Land Use Ordinance (Honolulu's zoning code) and the City's **Capital Improvement Program**. Mandated by the City Charter, these ordinances constitute the principal means for implementing the City's plans. These ordinances and regulations are required to be consistent with the General Plan, the Development Plans, and each other.

In addition to these three Charter-mandated tiers, the Development Plans are supplemented by two planning mechanisms that are not required by the Charter, including the **functional planning** process and **special area planning**.

Functional planning activities, some of which are mandated by state or federal regulations, provide long-range guidance for the development of public facilities such as the water system, wastewater disposal, and transportation. Special Area Plans are intended to give specific guidance for neighborhoods, communities or specialized resources.

## AUTHORITY OF THE DEVELOPMENT AND *SUSTAINABLE* COMMUNITIES PLANS

The authority of the Development and *Sustainable* Community Plans (hereinafter referred to as "Development Plans" for simplicity) is derived from the City Charter, which mandates preparation of a General Plan and Development Plans to guide "the development and improvement of the city." Together with the General Plan, the Development Plans provide a policy context for the land use and budgetary actions of the City. This is the authority that the originally adopted Development Plans carried, and it remains unchanged in the revised Plan presented in this document.



The Charter provides that “public improvement projects and subdivision and zoning ordinances shall be consistent with the development plan for that area.” Although the Development Plans are not themselves regulatory, they “regulate the regulators.” They are policy tools and are to be used, in conjunction with the programs and budgets of the City, to accomplish the objectives of the City and as guides for the decisions made in the private sector.

#### **WHY THE DEVELOPMENT PLANS HAVE BEEN REVISED**

In 1992 the City Charter Commission recommended, and the voters of Honolulu adopted, amendments to the City Charter. Chief among its findings, the Charter Commission concluded that the Development Plans were overly detailed and had created processes that duplicated the zoning process. To eliminate this unnecessary duplication, the 1992 Charter amendments changed the definition of Development Plans from “relatively detailed plans” to “conceptual schemes.”

The 1992 Charter amendments established that the purpose of the Development Plans is to provide:

- “priorities . . . (for the) coordination of major development activities”; and
- sufficient description of the “desired urban character and the significant natural, scenic and cultural resources . . . to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions.”

In response to the 1992 Charter amendments, the planning and permitting department launched a thorough review of the Development Plans. The goal of that review was the revision of all eight of the Development Plans to bring them into conformance with the Charter-mandated conceptual orientation. The revised plan presented in this document conforms to that mandate.



## EXECUTIVE SUMMARY

This plan is organized in five chapters and an appendix, as follows:

- Chapter 1: “Central Oahu’s Role in Oahu’s Growth” defines the region’s role and identity within the overall framework of islandwide planning and land management.
- Chapter 2: “The Vision for Central Oahu’s Future” summarizes the community’s vision for the future of the region, and lists important elements of that vision.
- Chapter 3: “Land Use Policies, Principles, and Guidelines” is the plan’s policy core. It provides policy guidance for the region’s various land use elements.
- Chapter 4: “Public Facilities and Infrastructure Policies and Principles” outlines policies, principles, and actions needed to support the land use policies of Chapter 3.
- Chapter 5: “Implementation” addresses needs for carrying out provisions outlined by the plan.

The following summary provides an overview to the vision and policies of the Plan.

## CENTRAL OAHU’S ROLE IN OAHU’S DEVELOPMENT PATTERN

- Promote diversified agriculture and pineapple on 10,350 acres of prime and unique agricultural lands
- Provide a variety of housing types in master planned suburban residential communities and mixed-use medium density centers in Waipahu
- Provide new employment in existing commercial and industrial areas, in new commercial areas designed to support their surrounding residential communities, and in a new medical park

## THE VISION TO 2025

- Population growth from 149,000 in 2000 to over 173,000 in 2025
- Addition of 11,000 new housing units to the existing 45,000 homes in Central Oahu in 2000
- Increase of jobs from almost 39,000 jobs in 2000 to over 65,000 in 2025
- Master planned residential developments at Mililani Mauka, Royal Kunia, Koa Ridge Makai, and Waiawa
- Long-term protection for agricultural and preservation lands

## ELEMENTS OF THE VISION

- **Urban Community Boundary** sets limits to urban development for the foreseeable future; protects 10,350 acres of diversified agriculture and pineapple lands along Kunia Road, above Wahiawa, around Mililani and on the Waipio Peninsula.
- **Open Space Network** includes both the area outside the Urban Community Boundary and a regional system of open space and greenways within the Boundary which includes parks, golf courses, agricultural areas, deep ravines, natural habitat areas, and greenways along major roads (see Open Space Map in Appendix A).



- **Revitalization of Waipahu and Wahiawa** will be based on Special Area Plans and Community Vision Statements for each town prepared in partnership with their communities.
- **Communities Designed to Reduce Automobile Usage** will be encouraged by providing easy access to transit, supporting moderate density housing and commercial development along the Waipahu transit corridor, implementing traffic calming design, and guiding development to encourage people to walk and bike.
- **Adequate Infrastructure** will be provided to address current deficiencies, and new development will not be approved until availability of key infrastructure can be assured.

## **IMPLEMENTING POLICIES**

Chapter Three provides **land use development policies** for :

- Open Space Preservation and Development
- Regional Parks and Recreation Complexes
- Community Parks
- Historic and Cultural Resources
- Waipahu Town
- Wahiawa Town
- Central Oahu Plantation Villages
- Existing and Planned Residential Communities
- Planned Commercial Retail Centers
- Industrial Centers
- Mililani Technology Park
- Military Areas

Chapter Four contains **infrastructure policies**, including policies on:

- Transportation
- Water Allocation and System Development
- Wastewater Treatment
- Electrical Power Development
- Solid Waste Handling and Disposal
- Drainage Systems
- School Facilities
- Public Safety Facilities; and
- Other Community Facilities

Chapter Five describes **the means for implementing the Central Oahu Sustainable Communities Plan** through:

- Development Priorities
- Special Area Plans
- Functional Plans
- Review and approval of Zone Change Applications, and
- Approval of public and private infrastructure investments as part of the Public Infrastructure Map/CIP Budget Processes



**CONCEPTUAL MAPS, GLOSSARY OF TERMS, AND ADOPTING ORDINANCE**

The Plan also includes an **Appendix with four conceptual maps** (Open Space, Land Use, Public Facilities, and Phasing) illustrating the vision elements and policies and **a glossary of terms** used in the Plan and on the maps, and, when adopted, an Appendix providing the **adopting Ordinance**.



## **Honolulu - Land Use**



## **1. CENTRAL OAHU’S ROLE IN OAHU’S DEVELOPMENT PATTERN**

Central Oahu plays a key role in implementing the directed growth policies of the **General Plan of the City and County of Honolulu**.

The towns of Waipahu and Wahiawa serve as gateways to Ewa and the North Shore. Historically, they have been headquarters for the sugar and pineapple plantations and support centers for the military. Beginning in 1968, Central Oahu also began to play a role as a major area for housing development. At that time, Castle & Cooke began development of Mililani Town, a 3,500-acre planned low-density suburban community which offered affordable single-family housing to first-time buyers. Subsequently, additional housing has been developed above Waipahu and the H-1 Freeway in Village Park, Gentry Waipio, Waikele, Royal Kunia, and other development projects.

In 1989, the Honolulu City Council approved changes to the **General Plan** which designated the urban fringe areas in Central Oahu as one of Oahu’s principal residential development areas. Since then, Central Oahu, along with the Primary Urban Center (PUC) and the Secondary Urban Center and urban fringe areas in Ewa, has provided the bulk of the new housing developed on the island.

The **General Plan** also calls for maintaining the viability of agriculture on Oahu and specifically states that “sufficient agricultural land” should be provided “in Ewa, Central Oahu, and the North Shore to encourage the continuation of ... pineapple as [a] viable industry.”

This update of the Central Oahu *Sustainable* Communities Plan reaffirms these roles and amplifies how they can be accomplished. In support of the **General Plan** policies, the Central Oahu *Sustainable* Communities Plan:

- Promotes diversified agriculture and pineapple on 10,350 acres of prime and unique agricultural lands along Kunia Road, north of Wahiawa, surrounding Mililani, and on the Waipio Peninsula in accordance with the **General Plan** policies to support agricultural diversification in all agricultural areas and to encourage continuation of a viable pineapple industry;
- Provides for the eventual development of up to 25,000 new homes in master planned residential developments at Mililani Mauka, Koa Ridge Makai, Waiawa, and Royal Kunia;
- Provides for a variety of housing types from affordable units and starter homes to mid-size multi-family and single-family units;
- Provides new employment in existing commercial and industrial areas (including Mililani Technology Park), in new commercial areas designed to serve their surrounding residential communities, and at a new medical park at Koa Ridge;
- Identifies the infrastructure needed to meet the likely residential, commercial, and industrial development through 2025; and
- Helps relieve urban development pressures on rural and urban fringe *Sustainable* Communities Plan Areas (Waianae, North Shore, Koolauloa, Koolaupoko, and East Honolulu) so as to preserve the “country” lifestyle of the rural areas and sustain the stable, low density residential character of the urban fringe areas.



## **2. THE VISION FOR CENTRAL OAHU'S FUTURE**

This chapter presents a statement of the vision for Central Oahu's future, discusses key elements of the vision, and presents illustrative maps and tables.

### **2.1 VISION STATEMENT**

The vision for Central Oahu has two horizons. The first is a 25-year horizon, extending from the present to the year 2025. This is the horizon that was used to project likely socio-economic change in Central Oahu and to assess the infrastructure and public facility needs that will have to be met over that period.

**The Vision to 2025.** By 2025, the Central Oahu *Sustainable* Communities Plan Area shown in Exhibit 1.1 is expected to experience moderate growth as existing areas zoned for residential development are built out. Population will have grown from almost 149,000 people in 2000 to over 173,000 in 2025. Over 11,000 new housing units will have been built since 2000 in master-planned communities.

Significant job growth is also expected, rising from almost 39,000 jobs in 2000 to over 65,000 in 2025 (almost 10 percent of Oahu total projected). The bulk of the private nonconstruction job growth is projected to be in services, retail, or transportation/communications/utilities (70 percent) with another 20 percent in industrial occupations.

**Beyond 2025.** In the course of the *Sustainable* Communities Plan revision, it became clear that there was value in looking beyond 2025 to identify what Central Oahu should look like when "fully" developed.

Such a perspective helped identify where open space should be preserved within the urbanized area, where the rapid transit corridor should be located, and where to set the limits to development in Central Oahu. As such, this second horizon might be called the "built-out" horizon and is probably 30 or 40 years in the future.

#### **Creation of An Open Space Network**

Urban growth will be contained within a boundary which will **protect prime agricultural lands** along Kunia Road, north of Wahiawa, surrounding Mililani, and on the Waipio Peninsula for diversified agriculture and pineapple. Preservation of these prime and unique agricultural lands for use in diversified agriculture and pineapple will help retain open space and views, in addition to supporting economic diversification.

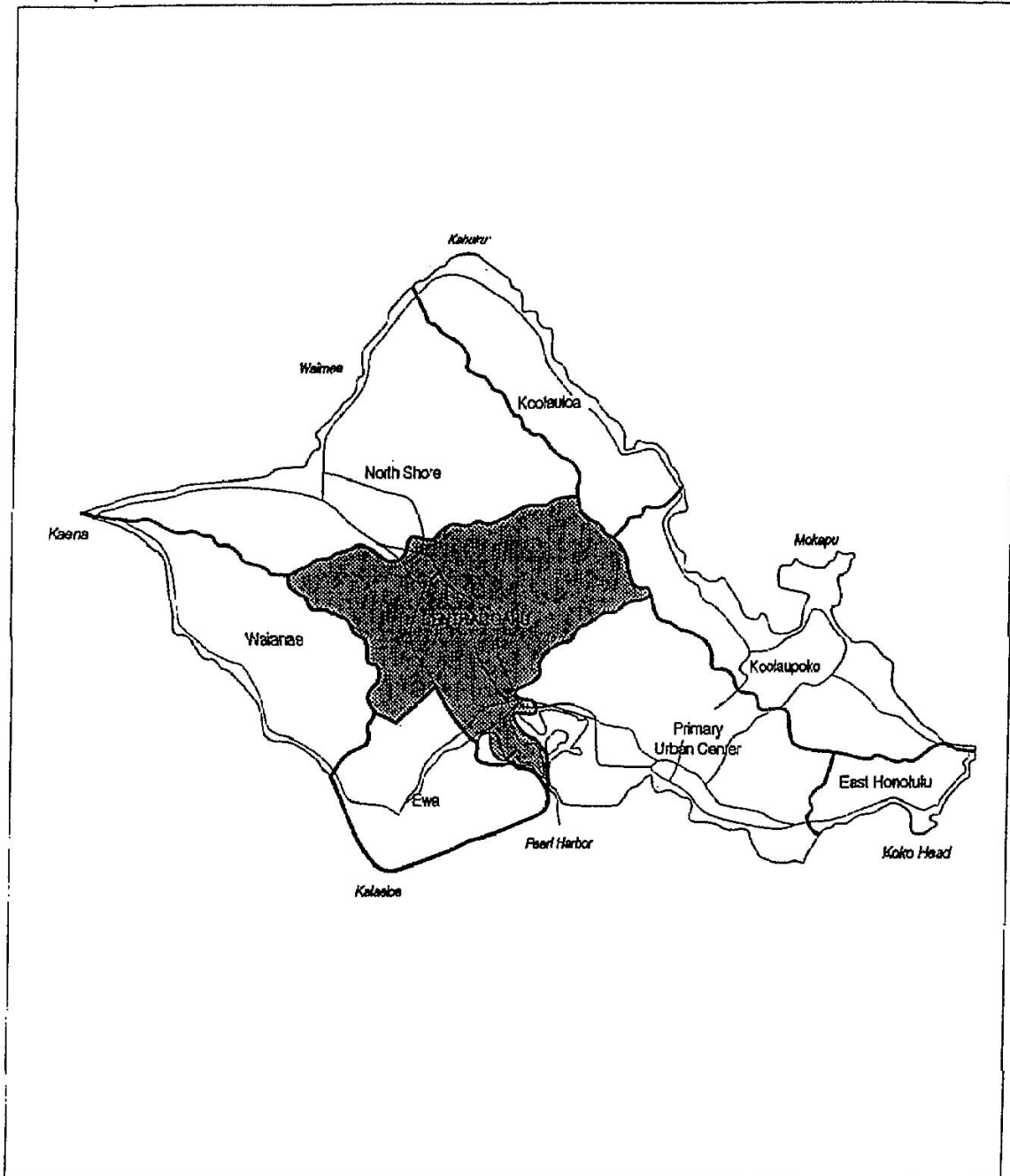
Within the Urban Community Boundary, a regional system of **open space and greenways** will give Central Oahu the feel of a network of communities "within a garden", as opposed to an unbroken suburban sprawl from Wahiawa to Waipahu. Open space will be preserved in parks, golf courses, agricultural areas, deep ravines, and wildlife habitats which will also help to protect significant views.

A major **new regional park at Waiola** will provide significant active and passive recreation facilities and access to the Kipapa and Waikele ravines which could help form part of a Central Oahu ravine recreational network. (See discussion of the ravines in Sec. 2.2.3 below.)

A **Shoreline Park and Preservation Area** developed along the entire shoreline in Pearl Harbor's West Loch and Middle Loch will restore the shoreline in Waipahu to public use, provide active and passive recreation facilities,



and help create the Pearl Harbor Historic Trail, a pedestrian path, bikeway, and restored historic train system running from Rainbow Marina near Aloha Stadium to the Waianae Coast.

**Exhibit 1.1****Development Plan and Sustainable Communities Plan Areas for Oahu**



**Revitalization of Waipahu and Wahiawa**

**Special Area Plans** prepared in partnership with the Waipahu and Wahiawa communities will guide redevelopment of these important gateway towns. To support the revitalization of these towns, commercial and industrial development outside of Waipahu and Wahiawa will be limited to completion of the Mililani Technology Park development and building of new commercial centers designed to meet the demand from their surrounding residential communities rather than a regional or islandwide market.

Development within Waipahu and Wahiawa will be supported by two **Enterprise Zones** which will provide State and County tax incentives to businesses which create new jobs within the zones.

**Natural, Historic, and Cultural Resources**

The Central Oahu *Sustainable* Communities Plan provides a vision for preservation, conservation, and enhancement of community resources.

**Natural resources** will be conserved through retention of natural drainageways, protecting valuable plant and wildlife habitats, and supporting efforts to minimize degradation of protection provided to the environment by the Conservation District.

**Cultural and historical resources** will be preserved and enhanced by protecting panoramic views, retaining visual landmarks and significant vistas, and preserving significant historic and prehistoric features from Central Oahu's past.

**Building Communities**

Growth in Central Oahu will mean **community building**, not just project development. Residential growth will occur primarily in master-planned communities (Mililani Mauka, Royal Kunia, Koa Ridge, Waiawa, and Waikele). Over 11,000 units will be added by 2025 to the 2000 total of 44,800 homes.

The master plans and design of new developments must demonstrate how they would create **communities which interact and support the vision** for development of the entire Central Oahu region.

These communities must be designed to meet the needs of a wide range of families and age groups. **Ample housing** should be provided for families needing affordable units and starter homes as well as for those seeking large multi-family and single-family units. **Housing for persons of all ages** will be needed, including young adults just moving out on their own, families seeking to buy their first home, and senior citizens wanting a retirement home close to their children and grandchildren.

**Separate identities** should be created for existing and planned communities by using open space, architectural design concepts, streetscape treatments, and landscaping which also is linked to the regional open space and greenway network.

**Communities Designed to Reduce Automobile Usage**

Central Oahu will be developed with a transportation system which provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile.



Moderate density housing and commercial development will be built along a rapid transit corridor stretching from the City of Kapolei through Waipahu to Pearl City in the Primary Urban Center. The moderate density residential and commercial uses centered at nodes along the corridor will support efficient use of buses and other forms of mass transit along the corridor, allowing some residents to minimize automobile use.

Sufficient land will be reserved in the corridor so that either an elevated or an at-grade separated rapid transit system could be developed on the corridor at some point in the future. (An at-grade separated system would **not** be elevated and would have its own exclusive right-of-way.)

High speed transit will also run along the H-2 Freeway, stretching from Waipahu to Wahiawa.

### **Adequate Infrastructure to Meet the Needs of New and Existing Development**

Public agencies will work with the community (residents, businesses, developers, and landowners) to address current deficiencies in roads, schools, and parks and to create adequate infrastructure to meet the needs of the residential and working population of the area. Especially for public schools, emergency medical services, and peak hour roadway capacity, the construction schedule of new developments that generate increased demand for services will be coordinated with the timing for the development of needed infrastructure capacity.

When applications for new projects are reviewed and approved, conditions will be included as a part of the land use approval, requiring that, before building permits are issued, a determination be made by the department of planning and permitting that key infrastructure will be developed in a timely manner to meet the needs resulting from the new projects.

Public-private mechanisms for financing infrastructure will be developed to support timely development of infrastructure, in accordance with approved private project master plans and public agency functional plans and infrastructure facility development plans.

Public agencies' planning for infrastructure needs will be guided by where the *Sustainable Communities Plan* indicates residential and commercial development should occur. See the discussion of development priorities in Section 2.2.10.

## **2.2 KEY ELEMENTS OF THE VISION**

The vision for Central Oahu's future will be implemented through the following elements:

- The Urban Community Boundary,
- Retention of Prime and Unique Agricultural Lands,
- The Network of Open Space and Greenways,
- A major Regional Park at Waiola,
- Revitalization of the Waipahu and Wahiawa town centers,
- Economic Development which strengthens Waipahu and Wahiawa and meets the needs of master-planned residential communities,
- Enterprise Zones which provide incentives for businesses to create jobs in Central Oahu,
- A Network of Master-planned Residential Communities,
- Communities designed to support nonautomotive travel,
- A Rapid Transit Corridor through Waipahu,



- Conservation of Natural Resources,
- Preservation and Enhancement of Cultural Resources, and
- Requirements for Adequate Infrastructure.

Each of these elements is discussed below.

### 2.2.1 Urban Community Boundary

The Urban Community Boundary for Central Oahu was drawn to give long-range protection from urbanization for 10,350 acres of prime and unique agricultural lands and for preservation of open space while providing adequate land for residential, commercial and industrial uses needed in Central Oahu for the foreseeable future. It is the intent that urban zoning not be approved beyond this Boundary.

The Urban Community Boundary for Central Oahu is illustrated in Exhibit 2.1, and is shown in greater detail on the four conceptual maps in Appendix A.

**Boundary Description.** On the east, the Urban Community Boundary generally follows the existing State Conservation District (C.D.) except where modified to protect lands proposed to be added to the Conservation District in the State Office of State Planning's State Land Use District Boundary Review (1992).

Starting at the boundary between the Primary Urban Center Development Plan Area and the Central Oahu Development Plan area, the Urban Community Boundary runs along the C.D. boundary proposed by the State Office of State Planning (OSP) for protection of the Navy Shaft until it reaches the 1,000-foot elevation.

From this point, the Boundary runs along the C.D. boundaries proposed by OSP for protection of the "Leeward Koolau Watershed," to the rim of the north fork of the Panakauahi Gulch.

At this point, the Boundary turns to the west and runs along the rim of the north fork of Panakauahi Gulch and the edge of the former agricultural fields until it reaches the eastern boundary of the Mililani Memorial Park where it turns and runs south along the boundary of the memorial park until it reaches the middle fork of the Panakauahi Gulch.

At this point, the boundary continues across the middle fork of the Panakauahi Gulch up to the southern rim of the middle fork of the Panakauahi Gulch where it turns and runs southwest along the rim of the middle fork and the edge of the former agricultural fields until it reaches a point opposite the Waipio Interchange on the H-2 Freeway.

At this point, the boundary crosses the Panakauahi Gulch and turns and runs north along the eastern edge of the H-2 right-of-way until it reaches the northern rim of the Kipapa Stream gulch where it turns and runs northwest along the rim and the edge of the existing and approved urban areas of Mililani Mauka until it reaches the C.D. boundary proposed by OSP for protection of the "Leeward Koolau Watershed." The Boundary follows the proposed boundary and then the existing C.D. boundary on the northeast edge of Mililani Mauka, and then across the south fork of the Kaukonahua Gulch (just above where the Wahiawa Reservoir begins) where it generally follows a military road to the top of Wahiawa Heights.

The Boundary then runs along Wahiawa's northern edge to just above where the north fork of the Wahiawa Reservoir begins, where it crosses the Kaukonahua Gulch. (North of Wahiawa, a pocket of urban use is enclosed, indicating the existing use of the U.S. Navy's NAVCAMS EASTPAC Wahiawa station.)



The northern portion of the Boundary continues on from the point where it crosses the northern fork of Kaukonahua Gulch to encompass Whitmore Village, mostly along the existing State Agricultural District (A. D.) boundaries, then back south to Kaukonahua Gulch. It then continues along the north bank of Kaukonahua Gulch to Schofield Barracks, and then runs along the urbanized areas of Schofield Barracks and Wheeler Army Airfield, following the existing A.D. boundaries.

The western boundary runs along the western edge of Mililani golf course and then follows the edge of the existing urban areas of Mililani along the western and southern edges of Mililani until it reaches Kamehameha Highway where it turns and runs along Kamehameha Highway, crossing Kipapa Stream to the southern rim of the gulch where it turns and runs along the military reservation boundary.

The Boundary follows the military reservation boundary from Kamehameha Highway southwest to the meeting point of Kipapa and Waikele Streams and then continues northwest along the military reservation boundary until it reaches the northern boundary of the Royal Kunia East Golf Course where it turns and follows the northern boundary of the Golf Course to the northern boundary of the Royal Kunia development urban area and proceeds west along the existing Hawaiian Electric Company overhead transmission line corridor which it follows to Kunia Road.

A makai portion of the boundary encloses that portion of the Waipio Peninsula that is in the blast zone for the West Loch Naval Magazine.

**Criteria.** Criteria for establishing whether an area should be considered inside or outside the boundary are given below:

The boundary generally circumscribes the existing communities and planned developments of Royal Kunia, Wahiawa, Mililani, Mililani Mauka, Koa Ridge Makai, Waiawa, Waiawa Castle & Cooke, Gentry Waipio, Waikele and Mililani Technology Park, and excludes:

- areas outside of the State Urban District, with the exception of Koa Ridge Makai, portions of Waiawa, and Waiawa Castle & Cooke, and a portion of Royal Kunia;
- areas inside the State Urban District which are in either the Preservation or Agriculture Zoning Districts, with the exception of the Phase II of the Mililani Technology Park (which has Development Plan approval for urban use, but had not been rezoned as of February 1999); the portions of Waiawa that have not been rezoned, and a residential project of about 100 acres proposed for a site in Mililani Mauka previously proposed for the University of Hawaii West Oahu campus.

**Objectives.** The main objectives of the Central Oahu Urban Community Boundary are to:

- Support General Plan policy;
- Support diversification of agriculture and preservation of the viability of the pineapple industry in Central Oahu;
- Allow residential development in specified master-planned communities;
- Promote an efficient pattern of urban development and support the full development of the Primary Urban Center and the Secondary Urban Center;
- Avoid development of hazardous areas; and
- Protect natural and scenic resources.



**Protection for Prime Agricultural Land.** The Urban Community Boundary protects prime agricultural lands along Kunia Road, north of Wahiawa, surrounding Mililani, and on the Waipio Peninsula from urban development for the foreseeable future, providing an incentive for landowners to give long-term leases to farmers. No proposals for urban uses will be considered for these areas.

**Open Space Network.** Within the Urban Community Boundary, significant acreage will be retained in open space in parks, wildlife habitats, golf courses, agricultural lands, and natural and grass-lined drainageways. (Of the estimated 21,500 acres within the Urban Community Boundary, almost 5,250 acres or 24 percent of the acreage will be in open space.) Two agricultural areas within the Boundary, Pine Spur and Honbushin, will be retained in the Agricultural Zoning District, and no proposals for urban uses for these areas will be considered.

**Capacity for Growth.** Even with the amount of land reserved for agriculture, parks, and open space, there is ample capacity within the Urban Community Boundary for residential, commercial, and industrial development extending beyond the 20-year horizon (2020).

As shown in Table 2.2, 2,600 acres are available for residential development, 160 acres for retail and office development, 100 acres for industrial development, and 270 acres for high-technology and medical park development. Development will be approved in phases to match the provision of infrastructure.

### 2.2.2 RETENTION OF AGRICULTURAL LANDS

The closure of the Oahu Sugar Company in 1995 raised serious questions about how thousands of acres of former sugar lands in Central Oahu should be used in the future. The Central Oahu *Sustainable* Communities Plan protects the highest value prime and unique agricultural lands in Central Oahu from urban development.

These high value lands are located in four areas: lands along both sides of Kunia Road, lands north of Wahiawa, lands surrounding Mililani, and lands on the Waipio Peninsula which are in the Blast Zone of the West Loch Naval Magazine. State agencies indicated that these prime and unique agricultural lands in Central Oahu should be retained in agriculture because they are among the best in the State, are supported by an extensive, well-developed agricultural infrastructure, and are near the major transportation hub for export markets.

These 10,350 acres have been rated, in the most authoritative studies, as potentially among the most productive lands in the State for diversified agriculture, and as lands uniquely suited for pineapple production. The State Department of Agriculture's November 1977 study, **Agricultural Lands of Importance to the State of Hawaii (Revised)** (ALISH), indicates that the lands along Kunia Road, north of Wahiawa, and surrounding Mililani are uniquely suited for pineapple production. The ALISH study also identifies the former sugar lands along Kunia and a portion of the lands on the Waipio Peninsula as "prime" agricultural lands which generally produce the largest yields and the best quality crops for the least expenditure of energy.

The University of Hawaii Land Study Bureau's December 1972 bulletin, **Detailed Land Classification - Island of Oahu**, rated productive capacity of the former sugar fields in Kunia as A and B and the Waipio Peninsula lands as B and C. Pineapple lands along Kunia Road, north of Wahiawa, and surrounding Mililani were predominately rated as B. (An A rating was given to the highest productivity lands and E was given to the lowest.)

One reason for the high ratings for the Kunia sugar lands is that they have unique advantages in infrastructure, water availability from the Waiahole Ditch, and access to the local markets of Honolulu and to the export markets through Honolulu International Airport.



Successful agricultural operations are currently being pursued both on the Kunia, Wahiawa and Mililani pineapple lands and on the former sugar lands in the Kunia area. Seed crops, potatoes, melons, and other truck crops are being grown on the Kunia sugar lands. The Navy recently requested proposals for agricultural activities on its lands surrounding the West Loch Naval Magazine, and is evaluating the responses.

By protecting agricultural lands from urban development, an opportunity is created for long-term retention and development of diversified agriculture on small farms, corporate lands, and agricultural parks. Public-private partnerships will be needed to solve problems of lease terms and tenure, access to capital, research, and marketing if this vision is to be realized.

### 2.2.3 OPEN SPACE NETWORK

Large agricultural areas, parks, golf courses, and other open space areas will be linked by a network of ravines and greenways to create an **Open Space Network**. See the Open Space Map in Appendix A. Table 2.1 lists the major components of the Central Oahu Open Space Network.

The **ravines** will remain free of further urbanization, preserving their scenic, natural resource, and recreational values. They provide natural open space breaks between the agricultural fields and urbanized areas, define boundaries, and provide view amenities for the master-planned communities. At some point in the future, they could become part of a ravine recreational network featuring trails and passive open space.

Where possible, drainage, transportation, and utility corridors will be used to create a system of linear greenbelts or **greenways** characterized by landscaping and bikeways which will connect existing and planned communities.

An important new element in the Central Oahu Open Space Network is the **Central Oahu Regional Park** at Waiola which provides needed open space, recreational opportunities, and a point for access to the Kipapa and Waikele Gulches when they become part of the proposed ravine recreational network.

The **Waipahu Shoreline Park** will restore public access to the Pearl Harbor West Loch and Middle Loch shoreline, provide passive and active recreational facilities, and help create the Pearl Harbor Historic Trail, a path shared by bikers and pedestrians running from the Rainbow Marina near Aloha Stadium to Nanakuli.

**TABLE 2.1: CENTRAL OAHU OPEN SPACE NETWORK**

#### **Mountain and Agricultural Areas**

Waianae Range Conservation District Lands

Agricultural Lands along Kunia Road

Agricultural Lands North of Wahiawa in Poamoho

Agricultural Lands Surrounding Mililani

Agricultural Lands in the Waipi'o Peninsula Blast Zone



**TABLE 2.1: CENTRAL OAHU OPEN SPACE NETWORK****Mountain and Agricultural Areas (continued)**

Military Training Areas (west of Schofield Barracks and East Range)

Koolau Range Conservation District Lands

**Natural Gulches and Drainageways**

Waiawa Stream

Waikele Stream/Gulch

Kipapa Stream/Gulch

Panakauahi Gulch

Waikakalaua Stream

Kaukonahua Stream (North and South Forks)

**Shoreline Areas**

Pearl Harbor access points

Wetlands and Wildlife Habitats

Pouhala Marsh

Pearl Harbor Ponds

**Parks**

Waipahu Cultural Garden Park

Waipahu District Park

Waipahu Shoreline Park (planned)

including the Waipio Peninsula Soccer Park

Central Oahu Regional Park (Waiola)

Mililani District Park

Mililani Mauka District Park

Wahiawa State Freshwater Park

Wahiawa Botanical Garden

Wahiawa District Park



**TABLE 2.1: CENTRAL OAHU OPEN SPACE NETWORK****Golf Courses**

Ted Makalena

Royal Kunia (built but not opened)

**Golf Courses (continued)**

Waikele

Waiawa (2 courses planned)

Hawaii Country Club

Mililani

Leileihua (military)

Kalakaua (military)

**Green Way Corridors**

Historic OR&amp;L Railway/Pearl Harbor Historic Trail

H-2 Freeway

Kamehameha Highway (from Waipahu Street to Wahiawa)

Meheula Parkway

Wilikina Drive (from Kunia Road to Kaukonahua Stream)

**2.2.4 REVITALIZATION OF WAIPAHU AND WAHIAWA**

Waipahu and Wahiawa will be revitalized through policies and programs designed to attract new investment and increase levels of activity in their traditional commercial and civic centers. Additional mid-rise development will be allowed in both towns and encouraged along the transit corridor in Waipahu as part of an economic revitalization strategy.

**Special Area Plans for Waipahu and Wahiawa** have been prepared in partnership with the Waipahu and Wahiawa communities to provide a community-based strategy for the revitalization efforts.

As discussed in section 2.2.5, two **Enterprise Zones** will support job development in Waipahu and Wahiawa by offering businesses incentives to develop and create jobs within the zones. (See Exhibit 2.2 for location.)

**2.2.5 ECONOMIC DEVELOPMENT AND ENTERPRISE ZONES**

Outside of Waipahu, Wahiawa, and the Mililani Technology Park, new commercial and industrial development will be designed to meet the demand from surrounding residential communities rather than a regional or islandwide market, in order to support the development of the secondary urban center in Ewa and the revitalization of the town centers of Waipahu and Wahiawa.



Two Enterprise Zones (as shown in Exhibit 2.2) have been approved by the City Council in the Central Oahu *Sustainable Communities Plan Area*. The northernmost Zone includes industrial and commercial areas in Wahiawa and Mililani Technology Park. The southernmost Zone includes areas along Kunia Road and in Waipio Gentry, Waiawa, and Waipahu (as well as Pearl City's Manana area which is located in the Primary Urban Center Development Plan Area).

Under enabling legislation approved by the City Council in 1995 (Resolution 95-292) and in 2002 (Resolution 02-227), qualifying businesses will receive rebates on City property taxes for two years, and waiver of certain county fees for seven years. In addition, under State law (Chapter 209E, Hawaii Revised Statutes), the businesses may receive exemptions from State excise taxes for seven years, a decreasing State income tax credit for seven years, and a State income tax credit for unemployment insurance premiums.

#### **2.2.6 MASTER-PLANNED RESIDENTIAL COMMUNITIES**

A network of master-planned residential communities provide a wide variety of housing and accommodate the need for affordable housing. Master plans will guide developments in Mililani Mauka, Royal Kunia, Waikele, Waiawa, Waiawa Castle & Cooke, and Koa Ridge Makai. (See Exhibit 2.3 for project locations.)

Development of these communities should incorporate planning principles and guidelines to preserve historic and cultural values, establish open space and greenway networks, and create well-designed, livable communities.

#### **2.2.7 COMMUNITIES DESIGNED TO SUPPORT NONAUTOMOTIVE TRAVEL**

The master-planned residential communities will be designed or redeveloped to support **pedestrian and bike** use within the community and **transit use** for trips outside of the community.

An east-west **Rapid Transit Corridor** through Waipahu will link the Primary Urban Center with the University of Hawaii West Oahu Campus and the City of Kapolei. Medium density residential development will be built along the corridor within walking distance of the major nodes and transit stops.

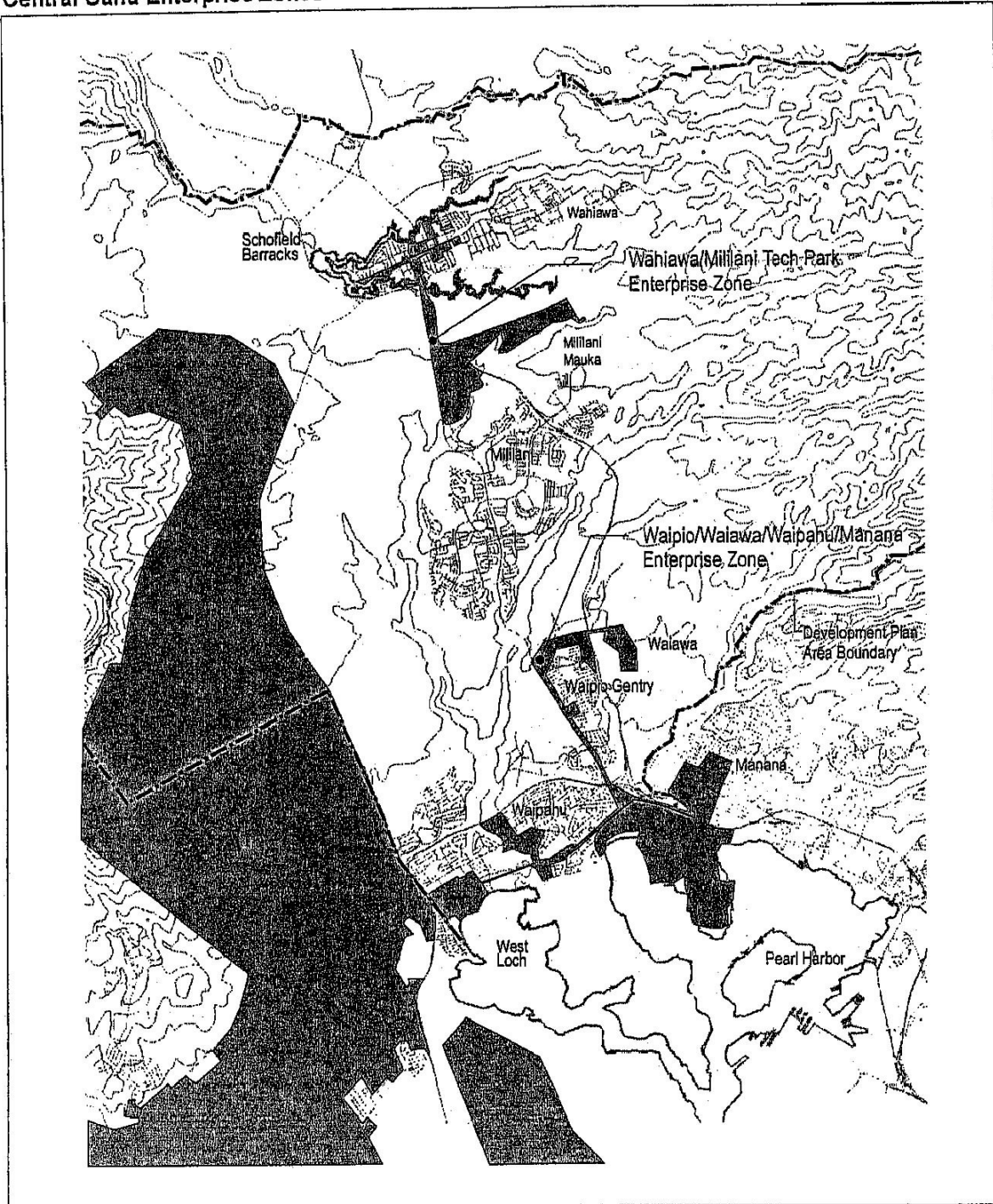
Medium density residential and commercial development will be developed at two **transit nodes** whose general location is indicated on the Public Facilities Map in Appendix A. Transit nodes are meant to be located at activity focal points which would serve as natural points for transferring from one transportation mode to another.

Through 2020, it is projected that transit service along the corridor will be provided by mass transit bus service running on roadways shared with other vehicles. However, sufficient right-of-way shall be reserved for the establishment, when needed in the future, for either an elevated or a separated at-grade rapid transit system. Such a system will require a 28-foot right-of-way along the route and a 75-foot right-of-way at transit station sites (at the transit nodes).

Access to the future rapid transit system from other Central Oahu communities will be provided by mass transit bus service, park and ride facilities, and express bus service running on High Occupancy Vehicle (HOV) lanes. High speed transit will also run along the H-2 Freeway, stretching from Waipahu to Wahiawa.



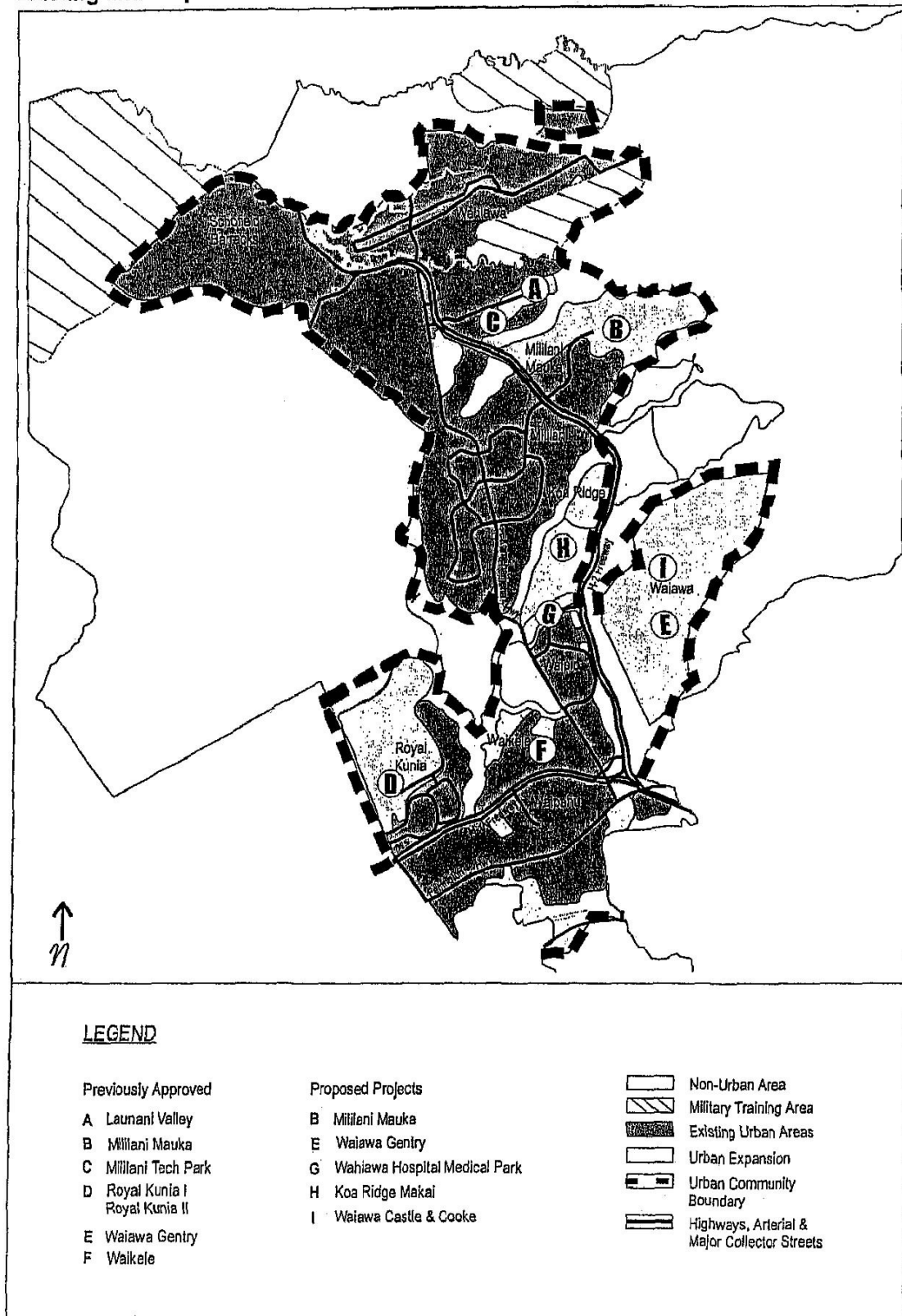
**Exhibit 2.2**  
**Central Oahu Enterprise Zones**





## Exhibit 2.3

## Existing and Proposed Master Planned Communities





### 2.2.8 CONSERVATION OF NATURAL RESOURCES

Central Oahu natural resources, including endangered species habitats, ravines, potable water supply, and Pearl Harbor waters, will be conserved by:

- Identifying and protecting endangered species habitats and other important ecological zones from threats such as fire, weeds, feral animals, and human activity;
- Retaining the major Central Oahu ravines as flood plains and open space resources by restricting further development and minimizing grading or other disturbance of the gulch walls;
- Designing the regional drainage and wastewater treatment system to minimize nonpoint source pollution of the ocean and Pearl Harbor;
- Protecting prime watershed recharge areas and the Pearl Harbor potable aquifer which underlies the Central Oahu area; and
- Protecting valuable habitats for endangered waterbirds located on the shoreline of Pearl Harbor at Pouhala Marsh and Pearl Harbor Ponds.

See Exhibit 3.2 in Chapter 3 for a conceptual mapping of key natural resources.

### 2.2.9 PRESERVATION AND ENHANCEMENT OF HISTORIC AND CULTURAL RESOURCES

Central Oahu's historic and cultural resources will be preserved and enhanced by:

- Preserving significant historic and prehistoric features from the plantation era and earlier periods, including
  - The Waipahu Sugar Mill and surrounding related features,
  - The OR&L right-of-way,
  - Kunia and Poamoho Villages and other remnants of the plantation era, and
  - Native Hawaiian cultural and archaeological sites; and
- Retaining visual landmarks and significant vistas, including:
  - Distant vistas of the shoreline and Pearl Harbor from the H-2 Freeway and Kunia Road above the Ewa Plain;
  - Views of the Waianae and Koolau Mountains from Kunia Road, Kamehameha Highway, and H-2 Freeway;
  - Views of Pearl Harbor from Farrington Highway in the vicinity of Waipahu High School;
  - The view of the Waipahu Sugar Mill from Waipahu Depot Road,
  - The view of the Waianae Mountains from the Waipahu Cultural Garden;
  - The view of the Waianae Mountains from Mililani High School, from Meheula Parkway near Keaolani Street, and from Mililani District Park;
  - The view of Diamond Head and Pearl Harbor from Mililani Recreation Center No. 2; and
  - The view of the upper Central Oahu plains toward Waialua from the end of Koa Street in Wahiawa;
  - The view of West Loch and of the Waianae Range from Kamehameha Highway while passing the Central Oahu Regional Park; and
- Limiting building heights outside of Waipahu and Wahiawa to low rise structures to protect panoramic views and the character of the built environment.

### 2.2.10 DEVELOPMENT PRIORITIES

Development in Central Oahu shall be characterized by:



- **Completion of existing and approved master-planned residential developments and proposed developments at Koa Ridge and Waiawa** (see the Central Oahu Phasing Map in Appendix A and Table 2.2 below);
- **Moderate growth of commercial centers in Central Oahu Urban Fringe Areas** to primarily serve the needs of the surrounding residential communities;
- **Adequate Facilities Requirements** to insure that development does not outpace infrastructure development; and
- **Coordinated Public-Private Infrastructure and Project Development** that supports the directed growth strategy of the General Plan. (Examples include a number of transportation projects on the H-2 Freeway.)

Table 2.2, which follows, provides estimates of the approximate size and scale of projects shown in Exhibit 2.3 and on the Land Use Map and Phasing Map in Appendix A. Most projects shown have previously received Development Plan and zoning approval and are at various stages in the development process. Proposed projects would require land use approvals to proceed.

Annual absorption of housing units (housing built less demolitions) in Central Oahu averaged 1,400 units per year from 1990 to 1995, but slowed to about 450 per year between 1996 and 1998. At the higher 1990 - 1995 rate, almost 20 years worth of development capacity is provided within the Urban Community Boundary (UCB) in Central Oahu.

The Department's most recent projections of likely growth for Oahu, prepared in October 2000, project annual housing absorption from 2000 to 2025 for Central Oahu to average 450 units per year. At that rate, over 50 years of residential development capacity is provided within the UCB in Central Oahu.

Table 2.2 shows the estimated number of housing units and the approximate gross acreage by land use category for both the previously approved projects and the proposed projects.

<b>TABLE 2.2: PHASING OF CENTRAL OAHU DEVELOPMENT</b>						
<b>Project Area</b>	<b>Housing Units</b>	<b>Land Area (Gross Acres)</b>				
		<b>Resid.</b>	<b>Comm.</b>	<b>Ind.</b>	<b>Tech./Med. Park</b>	<b>Total</b>
<u>Urban Expansion (1)</u>						
<b>Previously Approved</b>						
Launani Valley	82	7				7
Mililani Mauka (2)	1,830	248	22			270
Mililani Technology Park (3)					195	195
Royal Kunia I	438	72				72
Royal Kunia II	2,000	327	20	103		450



**TABLE 2.2: PHASING OF CENTRAL OAHU DEVELOPMENT**

Project Area	Housing Units	Land Area (Gross Acres)				
		Resid.	Comm.	Ind.	Tech./Med. Park	Total
Waiawa Gentry (4)	7,095	546	119			665
<b>TOTAL PREVIOUSLY APPROVED</b>	<b>11,445</b>	<b>1,200</b>	<b>161</b>	<b>103</b>	<b>195</b>	<b>1,659</b>
<b>Proposed Project</b>						
Koa Ridge Makai (5)	2,950	400	10			410
Pacific Health Center Medical Park (6)					100	100
Waiawa Castle & Cooke (5)	1,100	150				150
Waiawa Gentry (7)	5,000	750				750
Royal Kunia	900	150				150
<b>TOTAL PREVIOUSLY APPROVED &amp; PROPOSED</b>	<b>21,395</b>	<b>2,650</b>	<b>171</b>	<b>103</b>	<b>295</b>	<b>3,219</b>
<b>Notes:</b>  See Exhibit 2.3 for location of projects.  (1) Lands included in the urban expansion area would be eligible for processing zoning changes and other development applications starting with adoption of the Plan. Previously approved residential projects listed already have both Development Plan and zoning approvals, except for some parts of Waiawa Gentry which need a zone change.  (2) Includes Mililani Mauka Phase III which received Development Plan and zoning approval in 2002.  (3) Phase II of Mililani Technology Park (135 acres) needs zoning approval.  (4) Commercial acreage includes 68 acres in Commercial/Industrial Mixed Use. Zoning approval is needed for 226 acres.  (5) Estimates based on EIS Prep Notice filed October 2002. Will need zoning approval.  (6) Pacific Health Center Medical Park will need Plan Review Use approval.  (7) Will need State Land Use and zoning approval.  Department of Planning and Permitting estimates of acreages and housing units capacity as of June 2002.						



### **3. LAND USE POLICIES, PRINCIPLES, AND GUIDELINES**

The land use policies, principles, and guidelines in this chapter should be used in the review and approval of public and private projects in Central Oahu in order to help implement the vision for Central Oahu's development described in the preceding chapter. Policies are provided for:

	PAGE
3.1 Open Space Preservation and Development	24-442
3.2 Regional Parks and Recreation Complexes	24-447
3.3 Community-Based Parks	24-451
3.4 Historic and Cultural Resources	24-452
3.5 Waipahu Town	24-458
3.6 Wahiawa Town	24-464
3.7 Central Oahu Plantation Villages	24-468
3.8 Existing and Planned Residential Communities	24-471
3.9 Planned Commercial Retail Centers	24-476
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#### **3.1 OPEN SPACE PRESERVATION AND DEVELOPMENT**

##### **3.1.1 GENERAL POLICIES**

Open space will be used to:

- Provide long-range protection for diversified agriculture and pineapple on lands outside the Urban Community Boundary and for two agricultural areas located inside the Urban Community Boundary (Pine Spur and Honbushin);
- Protect scenic views and provide recreation,
- Define the boundaries of communities,
- Provide a fire safety buffer where developed areas border "wildlands" either in preservation or agricultural areas;
- Preserve natural gulches and ravines as drainageways and stormwater retention areas, and
- Create linkages between communities through a network of Greenways along transportation and utility corridors and drainageways.

##### **3.1.2 PLANNING PRINCIPLES**

The general policies listed above provide the basis for the following planning principles:

- **Visual and Physical Definition of Urban Areas.** The large expanses of open space beyond the Urban Community Boundary should provide the basic definition of the regional urban pattern. Within the Urban Community Boundary, the open space system should visually distinguish and physically separate individual communities, neighborhoods, and land use areas in Central Oahu.
- **Passive and Active Open Spaces.** The open space system consists of areas in active use, as well as passive areas. Active areas include parks, golf courses and agricultural fields. Passive areas include the



State Conservation District, fallow land in the State Agriculture District, wildlife habitat areas, natural preserves, and drainage and utility corridors. Shoreline areas may be either active or passive.

- **Creation of Open Space Network.** The various types of open space should be linked as an open space network, with major open space areas connected by open space corridors along transportation routes, utility corridors, and drainageways.
- **Dual Use of Drainage and Utility Corridors.** To create the regional open space network, drainageways and utility corridors should be viewed as opportunities to link major open spaces with pedestrian and bike paths along open space corridors. To accommodate such uses, where possible, drainageways should be retained as natural or man-made vegetated channels rather than be replaced by concrete channels.
- **Accessibility of Recreational Open Space.** Public parks and most golf courses will be accessible for recreation use, but the open space system should also promote the accessibility of shoreline and mountain areas.

### 3.1.3 RELATION TO OPEN SPACE MAP

The following areas shown on the Open Space Map in Appendix A are components of the regional open space system:

**Mountain and Agricultural Areas.** These are the areas outside of the Urban Community Boundary, including areas within the State Conservation District.

**Natural Gulches and Drainageways.** Within the Urban Community Boundary, the major gulches, as identified in Table 2.1, are indicated for preservation, except for the portion of Waikakalaua Gulch that has been previously designated for urban use.

**Shoreline Areas.** Along the Pearl Harbor shoreline, coastal-dependent uses and features such as shoreline parks and wetlands are indicated as parks and preservation areas, respectively.

**Parks.** Only island-wide, regional and district parks are shown. Community and neighborhood parks are part of the open space system, but they are generally too small to display on a regional map, and their location is determined more by community facility design considerations (see Section 3.3 below) than by their relationship to the regional open space network.

**Golf Courses.** All golf courses are shown, whether public or private, since their visual contribution to the open space system is the same.

**Greenways or Open Space Corridors.** These corridors are indicated on the map following certain public rights-of-way which are extensive enough to make a significant contribution to the regional open space network as a linear connector.

A listing of significant elements of the Central Oahu Open Space Network is provided in Table 2.1.

### 3.1.4 GUIDELINES

The following guidelines carry out the general policies and planning principles for regional open space elements:



**3.1.4.1 Mountain Areas**

- Public campgrounds and hiking trails should be acquired and maintained in the areas beyond the Urban Community Boundary on the slopes of both the Waianae Range and the Koolau Range.
- Public access to mountain areas, including vehicular access to trail heads and public campgrounds, should be required when new mauka developments are approved.
- At higher elevations, in the State Conservation District, the forest should be maintained. Utility corridors and other uses should avoid disturbance to areas with high concentrations of native species.
- Endangered species habitats and other important ecological zones should be identified and protected from threats such as fire, weeds, feral animals and human activity.
- Areas proposed by the State Office of State Planning in the State Land Use District Boundary Review (1992) for addition to the State Conservation District to protect the Leeward Koolau Watershed and the hydrologic zone of contribution to the Navy Shaft in Waiawa should be protected from urban development; provided, however, that urban uses such as utility installations and public facilities specifically approved by the State Department of Health and the Honolulu Board of Water Supply may be permitted within the zone of contribution.

**3.1.4.2 Natural Gulches and Drainageways**

- The major natural gulches within the Urban Community Boundary, as listed in Table 2.1, should be preserved as part of the open space system.
- Planned improvements to Central Oahu drainage systems should be integrated into the regional open space network by emphasizing the use of retention basins and recreational access in the design approach. (See Chapter 4, Section 4.6 below.)

**3.1.4.3 Shoreline Areas**

- Public access to the Pearl Harbor shoreline should be provided at intervals of approximately one mile, except where access is restricted by the military for security reasons.
- Nearshore wetlands and mangroves should be maintained and enhanced, where necessary, as wildlife habitats.
- At a minimum, a 60-foot setback should be provided along the shoreline, and should, where possible, be expanded to 150 feet.

**3.1.4.4 Agricultural Areas**

- Facilities necessary to support intensive cultivation of arable agricultural lands should be permitted.
- Facilities to support limited outdoor recreation use, such as camping, horseback riding and hiking, should be permitted in areas where agricultural use is not feasible.
- Residential use should be permitted only to the extent that it is accessory to the agricultural use. Where several dwellings are planned as part of an agricultural use, they should be sited and clustered to avoid the use of more productive agricultural lands and to reduce infrastructure costs.
- Buildings and other facilities that are accessory to an agricultural operation should be designed and located to minimize impact on nearby urban areas and roadways.



**3.1.4.5 Parks**

- A major Central Oahu Regional Park of approximately 270 acres is being developed at the site known as “Waiola,” north of Waikele and west of Waipio. Distant views of the Waianae Range from Kamehameha Highway should be maintained in the development and siting of facilities and landscaping in this park. (The location of Central Oahu Regional Park and other parks in Central Oahu is shown in Exhibit 3.1.)
- Trails leading from Central Oahu Regional Park to Waikele Gulch, connecting to a trail system throughout Central Oahu’s gulches, should be developed.
- A major new shoreline park should be established at Waipio Peninsula, giving access from Waipahu to the Pearl Harbor shoreline on the West Loch and Middle Loch.
- District parks within master-planned residential communities should include passive areas for picnicking and large, outdoor community gatherings.
- Wahiawa Botanical Garden should be retained primarily as a gulch in its natural state.
- Wahiawa Freshwater Park should be expanded to include most of the area adjacent to the Wahiawa Reservoir, limiting public access only as necessary to protect water quality and public safety.

**3.1.4.6 Golf Courses**

- Golf courses should be located and designed to optimize their function as drainage retention areas and as buffers between developments.
- In designing new golf courses, the impact of the course on existing and proposed trails, paths, and bike routes should be considered, and where necessary for these trails, paths, and bikeways, safe corridors by or through the course should be provided.
- Golf courses should be designed to provide view amenities for adjacent urban areas, including public rights-of-way.
- When screening is necessary for safety reasons, landscape treatment, setbacks and modifications to the course layout should be used rather than fencing or solid barriers.

**3.1.4.7 Wildland - Urban Fire Hazard Setbacks**

- As determined appropriate by the Honolulu fire department, residential or commercial developments which are adjacent either to preservation areas within the Urban Community Boundary or to lands within the State Conservation District may be required to provide a setback to reduce the risk of fire spreading from the “wildlands” to the developed area. Typically, such a setback would be 20 feet wide and should be landscaped with low-growth, low-burn plantings.

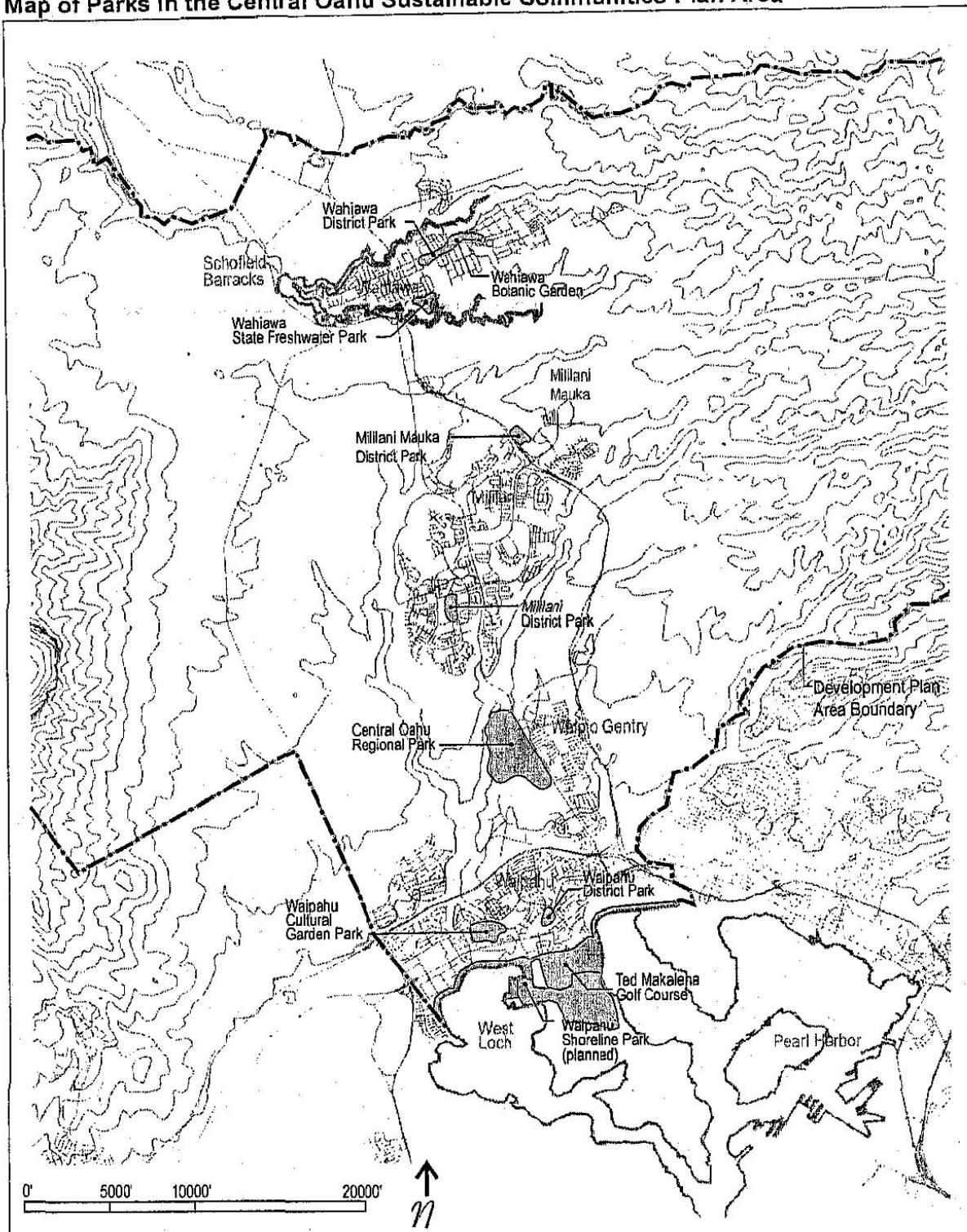
**3.1.4.8 Greenways and Open Space Corridors**

- Sufficient easement width should be provided for the major trunk lines and transmission lines for utility systems, when their alignment is not within a road right-of-way, to permit the growth of landscaping within the easement, consistent with all applicable operations, maintenance, and safety requirements.
- When existing overhead transmission lines are located within or adjacent to a road right-of-way, there should be sufficient width to permit the growth of landscaping adjacent to the transmission line, consistent with all applicable operations, maintenance, and safety requirements. The purpose of the landscaping is to divert attention from the overhead lines and, preferably, obscure views of the overhead lines from the travelway and adjacent residential areas. New transmission lines should be placed underground where possible under criteria specified in State law.



**Exhibit 3.1**

**Map of Parks in the Central Oahu Sustainable Communities Plan Area**





- The use of utility easements for pedestrian and bicycle routes should be permitted, consistent with all applicable operations, maintenance, and safety requirements.
- The rights-of-way for major arterials and major collector streets should be designed as landscaped parkways or greenways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. Major arterials should have separate bike paths, and major collectors should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for major collectors is 100 feet wide.
- Where urban development abuts the H-2 Freeway, an open space/landscaped buffer of sufficient size should be provided to preserve a view of green, minimize the visual intrusiveness of the development, and reduce the noise and air quality impact of the freeway traffic on the abutting development.
- Wahiawa Botanic Garden should be linked to the Wahiawa Freshwater Park on Lake Wilson by a trail through the gulch connecting the two areas.

### 3.2 REGIONAL PARKS AND RECREATION COMPLEXES

Sections 3.2.1, 3.2.2, and 3.2.3 present general policies, planning principles, and guidelines for development of regional parks and recreation complexes.

#### 3.2.1 GENERAL POLICIES

Regional recreational sites include the Central Oahu Regional Park, Wahiawa Botanical Garden, Wahiawa Freshwater Park, Waipahu Cultural Garden, the proposed Waipahu Shoreline Park, and public and private golf courses. To sustain economic development, public-private partnerships to build and maintain new park and recreation complexes should be considered.

**Regional Parks.** Central Oahu Regional Park is a new 269-acre park being developed on a triangle-shaped area across Kamehameha Highway from the Waipio-Gentry planned community. Key features of the regional park and sports complex include:

- A professional quality baseball complex for training and tournaments;
- Softball, youth baseball, soccer and multi-purpose fields;
- Basketball and sand volleyball fields;
- A championship tennis complex with center court and 24 tennis courts;
- A community center and aquatic center with Olympic-sized swimming and diving pools;
- A four field in-line hockey complex;
- A box car racing track;
- A skateboard park; and
- Passive recreational areas for picnicking, kite-flying, and pedestrian paths.

Land for the park has been acquired from the private landowner. Facilities will be constructed incrementally, as funding allows. Private funds will be used to construct some of the athletic facilities in the sports complex, primarily the baseball stadium, and the tennis complex.

Wahiawa Botanical Garden is a 27-acre park with a unique collection of plants representing the mid-level rain forest habitat. It is located in a small ravine in the center of Wahiawa and is one of five botanical gardens operated islandwide by the City Department of Parks and Recreation. It includes a small office, maintenance buildings, a comfort station, and parking stalls.



The Garden has experienced problems with erosion, lack of financial support and patronage, vandalism, and illegal dumping. A new Master Plan has been developed for the Garden and calls for the rehabilitation and expansion of the Garden. Improvements to the facility should focus on the promotion of eco-tourism, environmental education, and conservation of tropical plants, and include development of a visitor center, improvement of a second parking area, development of an activity core at the garden center, and creation of a new system of walking paths.

The Garden should be connected to the Wahiawa Freshwater Park at Lake Wilson by way of a trail through the gulch which connects the two facilities.

Wahiawa Freshwater Park is a 66-acre State recreation area surrounding Lake Wilson (Wahiawa Reservoir) which has picnicking facilities and the only year-round freshwater shoreline and boat fishing area on Oahu. A jogging path has been planned for the park, but has not been constructed. Expansion and improvement of park facilities are warranted.

In addition to its recreation value, the park serves as both an edge for the western end of Wahiawa and as a visual gateway to the North Shore.

Waipahu Cultural Garden is a 49-acre park owned by the City. The private, nonprofit Friends of Waipahu Cultural Garden Park has established and operates (as a concession) a recreated plantation village and a museum to display the cultural traditions, physical forms, and lifestyles of plantation workers and their families. The park is not designed for active recreation, but does include a picnic area, an ethno-botanic garden, and an educational building with a crafts room. Improvements to the park should be consistent with the historical and cultural theme of the park and should enhance open space and passive recreational values.

Waipahu Shoreline Park. A shoreline park and preservation area is planned for the entire length of shoreline in Pearl Harbor's West Loch and Middle Loch. The park will include the Pearl Harbor Historic Trail (a shared use path running on the OR&L right-of-way), the Pouhala Marsh wildlife sanctuary, and the Waipio Peninsula Soccer Park, a multi-field soccer complex on the Waipio Peninsula.

The Pearl Harbor Historic Trail running along the shoreline on the OR&L right-of-way will allow bikers and pedestrians to travel as far as Nanakuli to the west. Riding east, the path will follow a greenbelt linking a network of shoreline parks stretching from West Loch to Rainbow Marina near Aloha Stadium. The shoreline park could also potentially provide access to nearshore fishing and boating in the Pearl Harbor West Loch waters.

As proposed in the Waipahu Town Plan (December 1995), Waipio Peninsula Soccer Park has been built on lands on the Waipio Peninsula that are leased from the Navy. The complex provides a venue for local, national and international soccer players to train and compete year-round.

**Golf Courses.** Central Oahu has eight public and private golf courses. The City operates the Ted Makalena Golf Course on the Waipio Peninsula. Because of the need to use high-quality water for irrigation above the Pearl Harbor aquifer, municipal golf course improvements in Central Oahu should be limited to enhancement of Ted Makalena Golf Course. Any new stand-alone municipal courses to serve the region should be planned for Ewa where nonpotable water for irrigation uses will be available from the Honouliuli Wastewater Treatment Plant.

Private golf courses include Hawaii Country Club, Mililani, Royal Kunia and Waikele golf courses. Additional private golf courses are planned for Waiawa. The U.S. military operates the Leilehua golf course near Wheeler Army Airfield and the Kalakaua golf course at Schofield Barracks.



Golf courses can provide protection for open space, and help reduce flooding and nonpoint pollution by helping retain stormwaters. Golf course development should be approved only after determination that the course meets social, growth, economic, and environmental guidelines and approval of a community integration program.

**Recreation Complexes.** Sports and recreation complexes designed to attract visitors from throughout the region and the rest of Oahu have been proposed for various areas in Central Oahu.

Such complexes, if approved, should be designed to be compatible with surrounding land uses and environmental features.

### 3.2.2 PLANNING PRINCIPLES

The general policies for regional parks and recreation complexes are supported by the following planning principles:

- **Appropriate Scale and Siting.** Architectural elements and siting should be used to heighten the visibility of a major recreation events area as it is approached from principal travel corridors.
- **Environmental Compatibility.** Uses that generate high noise levels should be located and operated in a way that keeps noise to an acceptable level in existing and planned residential areas. The built environment should avoid adverse impacts on natural resources or processes in the coastal zone or any other environmentally sensitive area. To retain a sense of place, the design of recreation areas should incorporate natural features of the site and use landscape materials that are indigenous to the area where feasible.
- **Community Integration.** The design of recreational attractions may have a distinct identity and entry, but there should be elements that link these destinations with surrounding areas through the use of connecting roadways, bikeways, walkways, landscape features or architectural design.

### 3.2.3 GUIDELINES

The following guidelines implement the general policies and planning principles for regional parks and recreation complexes listed above.

#### 3.2.3.1 Islandwide and Regional Parks

- Central Oahu Regional Park, a major park of approximately 270 acres, is being developed at the site known as “Waiola,” near Waikele and Waipio. Distant views of the Waianae Range from Kamehameha Highway should be maintained in the development and siting of park landscaping and facilities.
- Trails leading from the Central Oahu Regional Park to Waikele Gulch, connecting to a trail system throughout Central Oahu’s gulches, should be provided.
- A major new shoreline park should be established at Waipio Peninsula, giving access from Waipahu to the Pearl Harbor shoreline.
- District parks within master-planned residential communities should include passive areas for picnicking and large, outdoor community gatherings.
- Wahiawa Botanical Garden should be retained primarily as a gulch in its natural state.
- Wahiawa Freshwater Park should be expanded to include most of the area adjacent to the Wahiawa Reservoir, limiting public access only as necessary to protect water quality and public safety.

(The location of parks in Central Oahu is shown above in Exhibit 3.1.)



### **3.2.3.2 Sports and Recreation Complexes**

#### **Definition of Use Areas**

- Uses that attract a high number of people for events should be separated as much as possible from residential areas and wildlife habitats.
- Parking areas for sporting events should provide amenities and service facilities to accommodate “tailgate” picnics, as well as nearby picnic tables and outdoor grills.

#### **Transportation Facilities**

- Bus loading areas and shelters and bicycle parking facilities should be located as close as possible to entry gates for special events areas.
- Bus stops should be located at all principal activity areas.

#### **Views**

- Facilities for special events should be located and designed to be readily visible and identifiable from the principal transportation corridors that lead to them.
- The visual identity of the complex should be established through distinctive architecture, landscaping, or natural setting.

#### **Landscape Treatment**

- The visibility of perimeter fencing, parking lots and garages and other utilitarian elements should be minimized through plantings or other appropriate visual screens along roadway frontages.
- In large parking lots, canopy trees should be used to provide shade. Special paving or pavement markings could be used to indicate pedestrian routes to destinations and differentiate sections of the parking area.

#### **Natural Environment**

- Wetland and other wildlife habitat areas shall be retained, protected, and incorporated as passive recreational resources.

### **3.2.3.3 Siting**

- Island-wide and regional parks and golf courses are shown on the Open Space Map and the Public Facilities Maps in Appendix A.
- Change in the location of an island-wide park or a golf course shall require a City review and approval process which provides adequate public notice and input.
- Funding for new park facilities shall be committed according to the priority for development of the area surrounding the park location, as indicated on the Phasing Map in Appendix A.
- Regional sports and recreation complexes may be located on the Waipio Peninsula, at the Central Oahu Regional Park, and in areas designated for commercial, industrial, or park use, subject to a City review and approval process which provides public review and complete analysis.



### 3.3 COMMUNITY-BASED PARKS

Sections 3.3.1 and 3.3.2 provide general policies and guidelines for community-based parks and recreation areas.

#### 3.3.1 GENERAL POLICIES

Adequacy. Adequate parks to meet residents' recreational needs should be provided. Currently, Central Oahu has less community-based park acreage than the Department of Design and Construction island-wide parks standard indicates is needed for its existing population. Community-based parks include mini-parks (three acres or less, 1/4 mile service radius), neighborhood parks (4-6 acres, 1/2 mile), community parks (10 acres, one mile), and district parks (20 acres, two miles).

In 2000, Central Oahu had 233 acres of community-based parks, 65 less than the island-wide standard. (However, some of this shortfall is met by private recreation centers maintained by homeowner's associations in most of Central Oahu's planned residential developments, and by the new Central Oahu Regional Park.)

Parks Standard. New residential developments should provide land for open space and recreation purposes at a minimum of two acres of park per 1,000 residents.

Additional park acreage will be needed to eliminate the current deficit and to meet projected growth through 2025. Based on the standards described above, an additional 114 acres of community-based parks and recreation areas would be needed to meet the needs of the projected 2025 Central Oahu population.

The primary method of acquiring the needed additional community-based park land will be through the park dedication ordinance which requires developers to dedicate land for parks and playgrounds (equivalent to 110 square feet per apartment, multi-family building, and planned development project dwelling unit, and 350 square feet per one-family, two-family, and duplex unit) as part of the subdivision approval process.

Recreational Access. Access to recreational resources in the mountains, at the shoreline, and in the ocean should be protected and expanded.

Trails to and through the gulches and mountains are an important public recreational asset. Some areas are difficult to access because of landowner restrictions.

New development projects are an opportunity to provide public access to trail heads from the streets extending toward the mountain slopes or approaching the edges of the gulches. In addition, the City should support other efforts to expand access to mountain and gulch trails in areas where urban development will not occur.

#### 3.3.2 GUIDELINES

The following guidelines implement the general policies for community-based parks:

##### 3.3.2.1 Development of Community-Based Parks

- The department of parks and recreation should co-locate Neighborhood or Community Parks with elementary or intermediate schools and coordinate design of facilities when efficiencies in development and use of athletic, recreation, meeting, and parking facilities can be achieved.



- The department of parks and recreation should coordinate the development and use of athletic facilities such as swimming pools and gymnasiums with the State Department of Education (DOE) where such an arrangement would maximize use and reduce duplication of function.
- Where feasible, the department of parks and recreation should site Community and Neighborhood Parks at the center of neighborhoods, in order to maximize accessibility.
- Development master plans should provide accessible pathways from surrounding streets to facilitate pedestrian and bicycle access to all features in parks.

### 3.3.2.2 Access to Ravines and Mountain Trails

- Where appropriate, new developments should provide a public access easement and parking area for hikers from the mauka boundary to a public mountain trail easement.
- Where appropriate, new developments should provide a means for a safe trail to major Central Oahu gulches which are either within or adjacent to the project area. (These gulches which are part of the Central Oahu Open Space Network include Waiawa, Panakauahi, Kipapa, Waikele, and Waikakalaua Gulches.)

### 3.3.2.3 Siting

- Conceptual locations for district parks are shown on the Open Space Map in Appendix A. These locations may be revised without needing to amend the *Sustainable* Communities Plan when more detailed site information and planning analysis is available.
- Community and neighborhood parks are part of the open space system, but their location is determined more by community facility design considerations than by their relationship to the regional open space network. Siting of Community and Neighborhood Parks should be reviewed and decided when the Project Master Plan is submitted, prior to the granting of a zone change.

## 3.4 HISTORIC AND CULTURAL RESOURCES

This section provides policies, planning principles, and guidelines for the preservation and development of historic and cultural resources in Central Oahu.

### 3.4.1 GENERAL POLICIES

Protection of Key Landmarks. Physical references to Central Oahu's history and cultural roots should be emphasized to help define Central Oahu's unique sense of place. Existing visual landmarks should be protected, and creation of new culturally appropriate landmarks should be supported.

Preservation of Historic Features. Significant historic features from the plantation era and earlier periods should be preserved.

Protection of Kukaniloko. Protection of Kukaniloko must be ensured. The appropriate form of that protection should be determined through consultation with the Hawaiian Council of Elders, the State Historical Preservation Officer, and others.

Protection of Vistas. Whenever possible, significant vistas, as identified in Table 3.1, should be retained.



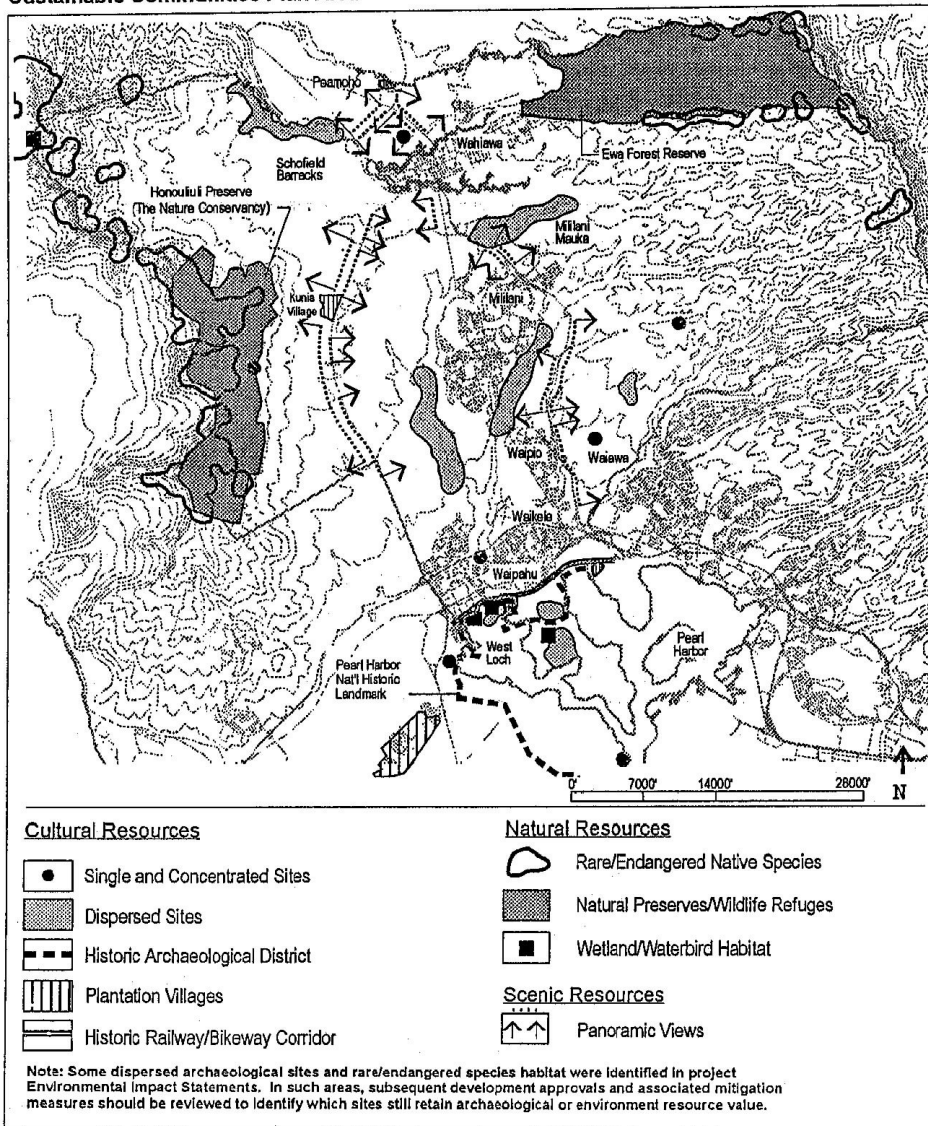
Prior Approved Mitigations Implement Plan Vision and Policies. Where known archaeological and cultural sites have been identified and impact mitigations approved as part of prior development approvals, these mitigations should be assumed to carry out the Plan vision and policies for preservation and development of historic and cultural resources in Central Oahu.

Exhibit 3.2 indicates the locations of a number of these historic and cultural resources which are also listed below in Table 3.1.

**OR&L Historic Railway.** The railroad right-of-way runs along the edge of Pearl Harbor, with a spur leading up to the Waipahu Cultural Garden Park.

**Exhibit 3.2**

**Map of Natural, Cultural and Scenic Resources in the Central Oahu Sustainable Communities Plan Area**





**Waipahu Sugar Mill Environs.** The location of the mill is indicated on the map of Waipahu Town in Section 3.5.1.1. Related features nearby include the Waipahu Cultural Garden Park, the grouping of storefronts on Waipahu Depot Road and Waipahu Street, and the OR&L Historic Railway.

**Kunia and Poamoho Villages.** These plantation villages, still occupied and functioning as housing areas for plantation workers, are both shown on the Urban Land Use Map, but they are both located beyond the designated Urban Community Boundary where agriculture is expected to remain a viable land use.

**Native Hawaiian Cultural and Archaeological Sites.** Kukaniloko (birthplace of the ali'i), a site where high chiefs were born, is located north of Wahiawa. It has been preserved as an interpretive site to be integrated into a future State park.

Other sites are located throughout Central Oahu, particularly in the ravines, and should be reviewed on a case-by-case basis to determine if they should be preserved and protected or if an adaptive re-use of the site is appropriate.

**TABLE 3.1: SIGNIFICANT CENTRAL OAHU HISTORIC,  
CULTURAL, AND SCENIC RESOURCES**

**HISTORIC AND CULTURAL FEATURES**

- OR&L Historic Railway Right-of-way
- Waipahu Sugar Mill and surrounding related features
- Kunia Village
- Poamoho Village
- Pearl Harbor National Historic Landmark

**NATIVE HAWAIIAN CULTURAL AND ARCHAEOLOGICAL SITES**

- Kukaniloko
- Kipapa Gulch Archaeological Sites
- Waikele Gulch Archaeological Sites
- Waikakalaua Gulch Archaeological Sites

**SIGNIFICANT VIEWS AND VISTAS**

- Distant vistas of the shoreline and Pearl Harbor from the H-2 Freeway and Kunia Road above the Ewa Plain
- Views of the Waianae and Koolau Mountains from Kunia Road, Kamehameha Highway, and H-2 Freeway
- Views of Pearl Harbor from Farrington Highway in the vicinity of Waipahu High School
- The view of the Waipahu Sugar Mill from Waipahu Depot Road
- The view of the Waianae Mountains from the Waipahu Cultural Garden
- The view of the Waianae Mountains from Mililani High School, from Meheula Parkway near Keaolani Street, and from Mililani District Park
- The view of Diamond Head and Pearl Harbor from Mililani Recreation Center No. 2



**TABLE 3.1: SIGNIFICANT CENTRAL OAHU HISTORIC,  
CULTURAL, AND SCENIC RESOURCES**

- The view of the upper Central Oahu plains toward Waialua from the end of Koa Street in Wahiawa
- The view of West Loch and of the Waianae Range from Kamehameha Highway while passing the Central Oahu Regional Park

### 3.4.2 PLANNING PRINCIPLES

Central Oahu contains several different types of historic and cultural sites which are representative of its history and valuable as historic records and cultural references. The treatment of a particular site should vary according to its characteristics and potential value.

The following planning principles should be used to determine appropriate treatment:

- **Preservation and Protection.** Some historic, cultural, or archaeological sites have high preservation value because of their good condition or unique features. Such sites are recommended for in situ preservation and appropriate protection measures.
- **Adaptive reuse.** Many historic sites can be converted from their original intended use to serve a new function without destroying the historic value of the site, and perhaps even enhancing its interpretative value. In other cases, such as sites with sacred significance, the site should be either restored or remain intact out of respect for its inherent value.
- **Compatible setting.** The context of an historic site is usually a significant part of its value. Care should be taken in the planning and design of adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site. The appropriate treatment should be determined by the particular qualities of the site and its relationship to its physical surroundings.
- **Accessibility.** Public access to an historic site can take many forms, from direct physical contact and use to limited visual contact. The degree of access should be determined by what would best promote the preservation of the historic, cultural and educational value of the site, recognizing that economic use is sometimes the only feasible way to preserve a site. In some cases, however, it may be highly advisable to restrict access to protect the physical integrity or sacred value of the site.
- **Public Views.** Public views include views along streets and highways, mauka-makai view corridors, panoramic, and significant landmark views from public places, views of natural features, heritage resources, and other landmarks, and view corridors between significant landmarks. The design and siting of all structures should reflect the need to maintain and enhance available views of significant landmarks. No development should be permitted that will block important public views, as listed in Table 3.1 and illustrated in Exhibit 3.2. Whenever possible under criteria specified in State law, overhead utility wires and poles that significantly obstruct public views should be relocated or placed underground.

### 3.4.3 GUIDELINES

The following guidelines for historic and cultural resources implement the general policies and planning principles listed above:

#### 3.4.3.1 OR&L Historic Railway

As recommended in the Waipahu Town Plan (December 1995) and the Pearl Harbor Historic Trail Master Plan (May 2001), the long-term restoration of the OR&L railroad and development of the right-of-way as a world-class



heritage and educational corridor would enhance neighboring communities and serve as a major visitor and cultural attraction.

**Method of Preservation**

- The existing railway and associated structures should be repaired or reconstructed to the extent feasible, in order to permit its use for historic and educational rides.
- Preferably, the route would extend from Aiea to Nanakuli. Currently, the Hawaiian Railway Society operates a train between Ewa Villages and Kahe Park near Nanakuli.

The first phase of railway restoration efforts should initially focus on restoring the historic rail link between Ewa Villages and Waipahu, with a train station at Waipahu Depot and a railroad stop and turnaround at the Waipahu Cultural Garden.

**Adaptive Reuse**

- Expansion and use of the railroad to promote the history and culture of the area should be encouraged.
- There should be a parallel paved shared-use path for bicycles and pedestrians along the length of the rail route, either within or adjacent to the right-of-way. The path should be provided even in those sections where the railroad itself is not operational.

**Adjacent Uses**

- Design of structures and elements related to the Pearl Harbor Historic Trail should reflect the historic nature of the railway and its surroundings.
- New development should be set back a minimum of 50 feet on either side of the OR&L right-of-way, unless it is either directly related to the operation of the railroad, or reconstruction of an historic use, or use of the right-of-way for open space and bikeway purposes; or is otherwise specified in existing land use approvals.
- Landscaping should be provided along the adjacent path, with occasional rest stops with seating and other amenities.
- Railroad station platforms, maintenance and equipment buildings, kiosks and other accessory structures with an historic architectural theme, as well as parking and loading areas should be permitted in the railroad right-of-way and setback area.

**Public Access**

- Public use should be encouraged by continuing and expanding the operation and run of the historic railway and by providing a parallel shared path.
- Interpretative signs along the route should explain the historic significance of the railroad and note points of interest.

**3.4.3.2 Waipahu Sugar Mill Environs****Methods of Preservation**

- The sugar mill stack and boiler room should be retained as visual symbols of Waipahu's plantation town history.



- The historic theme of the Waipahu Cultural Garden Park should be maintained, and opportunities should be sought to establish a more direct physical and economic connection between the park and the mill.
- Economic revitalization and in-fill development should be promoted in the old commercial core along Waipahu Street and Waipahu Depot Road to maintain the historic character of this area.
- Visitors should be attracted to the area by extending the OR&L historic theme train operations to allow rides between Ko Olina Resort and the Waipahu Cultural Gardens.
- A transit linkage should be established between Waikele Center and Waipahu Town.

#### **Adaptive Reuse**

- A variety of reuse options which are consistent with the purpose of retaining the historic plantation theme for the old town core should be allowed at the Waipahu Sugar Mill site.
- Adaptive reuse of older commercial buildings in the town core should be encouraged as a means to retain the historic building forms.

#### **Urban Form**

- Buildings in the old commercial core should be limited to two or three floors in height in keeping with the area's historic scale and to preserve views of existing mill structures.
- Renovations to the sugar mill for adaptive reuse should minimize exterior alterations that substantially change the building profile or accessory structures that define the mill's original purpose.
- A strong pedestrian shopping orientation in the old town core should be promoted by expanding "storefront" businesses, enhancing the sidewalk areas with street trees and period fixtures, consolidating off-street parking behind buildings, and retaining on-street parking wherever possible.
- Development standards should be modified, as needed, to facilitate the retention and rehabilitation of historic structures and appropriate in-fill development.

#### **Public Access**

- The Waipahu Cultural Garden Park should remain a public facility.
- Public access to the Waipahu Sugar Mill and other privately owned historic buildings in the Old Waipahu Town Anchor area (see Sec. 3.5.1.1) should be encouraged.

### **3.4.3.3 Native Hawaiian Cultural and Archaeological Sites**

#### **Method of Preservation**

- Preservation in situ should be required only for those features for which the State Historic Preservation Officer has recommended such treatment.
- The preservation method, ranging from restoration to "as is" condition, should be determined on a site-by-site basis, in consultation with the State Historic Preservation Officer.

#### **Adjacent Uses**

- Appropriate delineation of site boundaries and setbacks and restrictions for adjacent uses should be determined on a site-by-site basis in consultation with the State Historic Preservation Officer.
- Criteria for adjacent use restrictions should include sight lines that are significant to the original purpose and value of the site.



**Public Access**

- The appropriateness of public access should be determined on a site-by-site basis in consultation with the State Historic Preservation Officer, appropriate Hawaiian cultural organizations and the owner of the land on which the site is located.

**3.5 WAIPAHU TOWN**

This section discusses policies, planning principles, and guidelines for development of Waipahu. Waipahu will be revitalized by policies and programs designed to attract new investment and to increase levels of activity in its traditional commercial and civic centers.

The closing of the Oahu Sugar Company in 1995 marked the end of an era and of Waipahu's role as a sugar mill town. Decisions on the future use of the mill site, which is the heart of the old town, will play a major role in defining the future character of Waipahu.

Waipahu's commercial and industrial areas have been adversely affected by the growth of new commercial and industrial developments elsewhere in Ewa and Central Oahu, requiring a search for new service and niche market opportunities if the business areas are to be revitalized.

**3.5.1 GENERAL POLICIES**

Waipahu's future is addressed in the **Waipahu Town Plan**, the Special Area Plan for Waipahu which was completed in December 1995 and in the **Waipahu Livable Communities Initiative** (May 1998). These community-based plans form the basis for the following policies, planning principles, and guidelines which will be used to evaluate proposed land use changes and infrastructure developments in Waipahu.

The Waipahu of the future is envisioned as a harmonious blend of the old and new. Within the framework of this vision, Waipahu Town should retain and embrace its cultural and plantation heritage – the smokestack and portions of the sugar mill should remain as dominant symbols, and the Waipahu Cultural Garden Park should serve as a reminder of this heritage. There should be a mixture of old style plantation buildings with more contemporary buildings. Streets should be landscaped and pedestrian friendly, with ample roads to get around and through the town. Waipahu Street should remain a slow winding road with large monkey pod trees.

Economic development of Waipahu should be integrated with social, cultural, and recreational enhancements. Waipahu Town should be revitalized for the betterment of the business community and should provide gainful employment serving the immediate community and the region. The economic development and revitalization of Waipahu, particularly within the town core area, is central to implementing the community's desired land use plan. The desired land use plan also recognizes and addresses the social and recreational opportunities that would achieve a balance in the future development of Waipahu, enhance the experiences of residents and workers, and make Waipahu a more attractive place to visit.

Greenery and open spaces should be preserved and enhanced for the current and future residents to use and enjoy. Waipahu's shoreline should be reopened for fishing, boating, and picnicking. The OR&L railway should be restored to allow train rides to and from Ewa and beyond.



The future of Waipahu is envisioned to embrace a vibrant community where the country atmosphere is preserved, where business prospers, and where diverse people can come together to live, work, shop, and play.

### 3.5.1.1 Anchor Areas

As shown in Exhibit 3.3, the Waipahu Special Area Plan identifies four land use anchor areas:

- The **Old Waipahu Town Anchor** area includes the Manager's Drive site, the Sugar Mill site, Hans L'Orange Park, Waipahu Street and Waipahu Depot Road, and the Waipahu Cultural Garden Park.
  - The Sugar Mill Site formerly housed Oahu Sugar Company's mill operations. Selected existing structures on the mill site should be retained in future redevelopment of the site. Light industrial use should be permitted in the area adjacent and mauka of the sugar mill. Commercial and community-oriented uses should be permitted within the remainder of the site. Commercial uses should utilize the mill structure to create a themed commercial experience with shops and restaurants. "Big box" stores would not be appropriate for the site. Community-oriented uses for the site include a Heritage Park/Center with an open market, a YMCA facility, and a Filipino Community Center.
  - Hans L'Orange Park should be expanded from 6.9 acres to 10 acres to expand the existing playing field, and to add more passive park area and parking.
  - An Old Town Commercial area should be designated along portions of Waipahu Street and Waipahu Depot Road. Guidelines for the streetscape and buildings should be used to enhance the Old Town identity of the area. Existing businesses should be encouraged to revitalize their building facades; new businesses should be encouraged to in-fill in ways that visually maintain the Old Town Commercial character; and a pedestrian-oriented theme should be established.
- The **Community Facilities Anchor** area includes the Civic Center site and the Mini-Park-and-Ride Facility.
  - Government services should continue to be consolidated in the vicinity of Mokuola Street and the Waipahu District Park. Existing facilities include the District Park, the Waipahu Civic Center, the new Waipahu Public Library, and elderly rental housing. Planned facilities include a senior citizen center, additional elderly rental units, and low-rise public rental units.
  - A mini-park-and-ride facility should be located on a portion of a parcel located at the Ewa-mauka corner of Hikimoe and Mokuola Streets.
- The **Recreation Anchor** area includes the Shoreline Park/Preservation Area, Shoreline Pedestrian and Bike Path, the OR&L Right-of-Way, and the Waipio Peninsula.
  - A Shoreline Park and Preservation Area should be developed along the entire shoreline in Pearl Harbor's West Loch and Middle Loch with a 150-foot setback required for all new developments located on the shoreline. This park would be part of a continuous shoreline park and greenbelt from West Loch to Rainbow Marina near Aloha Stadium. Access to nearshore fishing and boating in Pearl Harbor's West Loch should be sought to improve recreational opportunities.



## Exhibit 3.3

## Waipahu Town and Key Sites

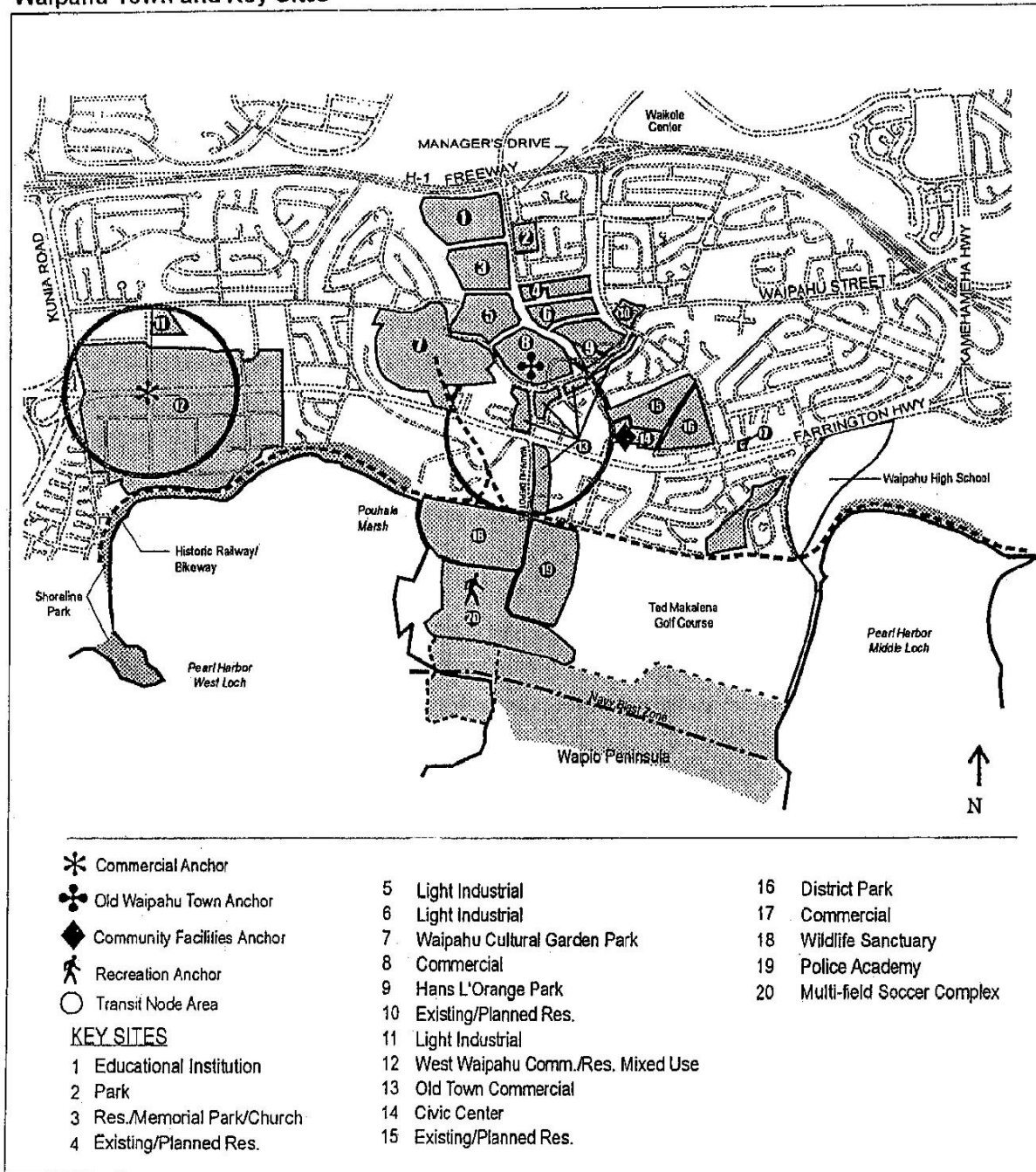


Exhibit 3.3 identifies the location of the areas and planned land uses at major sites within each area.



- A Shoreline Pedestrian and Bike Path should be developed within the 40-foot wide OR&L right-of-way, as part of the Pearl Harbor Historic Trail that will run on the OR&L right-of-way from the Waianae Coast to the Rainbow Marina near Aloha Stadium.
  - The OR&L right-of-way should be restored to permit train operations between the Waipahu Cultural Garden Park and the Waianae Coast.
  - The Waipio Peninsula encompasses approximately 1,400 acres of State, City and Navy lands makai of the OR&L right-of-way. Existing City public facilities include the Police Training Academy, the Waipahu Refuse Convenience Center, the Waipahu wastewater pump station, the department of parks and recreation temporary plant nursery, and the Ted Makalena Golf Course. The initial phase of the Waipio Peninsula Soccer Park, a recreational complex with multiple soccer fields, has been developed on lands leased from the Navy.
- The **Commercial Anchor** area includes a commercial and light industrial area centered around the intersection of Leoku and Farrington Highway.

Redevelopment of the area to encourage medium-density, mid-rise mixed use residential/commercial development within a one-quarter mile distance of a town center/transit node near the intersection of Leoku and Farrington Highway (as shown on Exhibit 3.3) should be pursued through public-private partnerships.

In addition, the shoreline setback areas and the shoreline trail park areas along West Loch should be acquired, and view planes opened to allow views of Pearl Harbor from key points along Leokane Street and Pupuole Street on the makai edge of the area.

### 3.5.2 PLANNING PRINCIPLES

Six major themes guided the preparation of the Waipahu Special Area Plan and provide basic principles for the planning and design of developments in Waipahu Town.

- **Economic Revitalization.** Opportunities for economic revitalization should be provided which generate jobs and attract people to Waipahu while minimizing adverse impacts to existing businesses.
- **Compatible Uses.** New land uses should be compatible with existing uses and provide for community needs.
- **Heritage.** Waipahu's plantation and cultural heritage should be promoted and preserved.
- **Urban Design.** The overall visual appearance and character of Waipahu Town should be improved.
- **Recreation.** Increased opportunities for recreation on the land and in nearshore waters should be provided.
- **Circulation.** Vehicular access into and within Waipahu should be improved, and pedestrian, bicycle, and transit facilities should be integrated.

### 3.5.3 GUIDELINES

To implement the general policies and planning principles for Waipahu, the following guidelines should be used to design and evaluate land use developments and infrastructure projects.



**3.5.3.1 Urban Design**

- The scale and sense of Waipahu as a small town should be preserved. Existing zoning heights and densities should be preserved throughout Waipahu Town to help maintain the small town scale.
- The visual dominance of the sugar mill, particularly the smokestack, should be maintained.
- Structures having historic, cultural, and/or visual significance should be retained and renovated as needed. Historic buildings on the mill site and in the Old Town Commercial Area should be identified. Adaptive reuse of these historic buildings should be encouraged.
- The Old Town Commercial Area should have a special image signifying its historic character and role as the cultural and business center for Waipahu. Detailed design guidelines should be established for the Old Town Commercial Area to create the desired historic plantation theme.
- The visual appearance of Farrington Highway and the linkages within and between the Old Town Commercial Area and surrounding areas should be upgraded. Farrington Highway should be landscaped with canopy trees in the median, and landscaped entry features should be created at both ends of Farrington Highway and at the intersection of Waipahu Depot Road and Farrington Highway.
- Open space areas, the shoreline, and other available natural areas should be developed for use by the public and integrated into the built environment. Open space and coastal resource areas on the Waipio Peninsula and along the Pearl Harbor shoreline should be made available for increased use by the public. Parks, open space areas, and centers of interest should be linked by landscaped roads and pedestrian/bicycle pathways.

**3.5.3.2 Old Waipahu Town****Sugar Mill Site**

- Renovations to the sugar mill for adaptive reuse should retain the visual qualities and building character that defined the mill's original purpose.

**Old Town Commercial Area**

- The compactness of the town's historic shopping area should be maintained, with new uses encouraged to in-fill between existing buildings along Waipahu Street and Waipahu Depot Road.
- The character of Waipahu Street and Waipahu Depot Road should be maintained except for adjustments to improve traffic flow and safety in order to safeguard the historically and visually significant buildings and maintain the area's pedestrian scale and orientation.
- Existing significant historic structures should be identified, maintained and restored wherever possible, and adaptive reuse encouraged where necessary to ensure their continued viability and use.
- The architectural character of new buildings should reflect the plantation era architecture of Waipahu's historic past. Basic design principles, texture, construction materials, and colors should be compatible with styles from this era.
- A strong pedestrian orientation should be encouraged and maintained through the expansion of "storefront" businesses, enhancement of the streetscape and walking environment, and consolidation of off-street parking behind buildings.
- New buildings or additions should be located close to the street, creating a traditional "street line" of facades, with buildings forming an attractive edge to the roadway.
- Storefronts should be oriented to the street and include elements such as canopies, overhangs, porches, and trellises to scale down building heights and enhance the street-level environment.



- Buildings should be limited to two or three floors in height in keeping with the area's historic scale and to preserve views of existing mill structures.
- Buildings should avoid awkward or overscaled forms, and long building forms should be broken down or offset into smaller masses of more residential proportions.

#### **3.5.3.3 Community Facilities Anchor Area**

- Public service uses should be encouraged on large vacant areas within this district.
- Spaces between buildings should be developed and landscaped in a manner which provides the area with a unifying visual image and creates the sense of an active, people-oriented civic park.

#### **3.5.3.4 Commercial Anchor Area**

- Attractive and distinctive entry features should be established at each end of the Commercial Anchor Area.
- Landscaping along Farrington Highway and adjoining roadways should be enhanced through the increased use of street trees and the establishment of planting schemes which help to identify and distinguish between the different commercial and industrial areas.
- Mid-rise, medium-density apartment uses should be encouraged within one-quarter mile of the future town center/transit node near the intersection of Leoku and Farrington when combined with retail commercial uses on the ground level.
- The visual appearance of business development should be upgraded through building facade improvement programs and through the greater use of shade trees within parking areas and of landscape buffers between parking areas and adjoining streets.

#### **3.5.3.5 Residential Areas**

- Where possible and appropriate, small community gardens should be established in residential and apartment areas in order to increase green space and maintain a connection with the town's agricultural roots.
- Street trees should be provided in all neighborhoods in order to soften the visual impact of development and enhance the walking environment for residents.
- Mid-rise, medium density apartment buildings, including mixed-use developments, should be encouraged in areas within one-quarter mile of future town centers/transit nodes at the intersection of Leoku and Farrington and at the intersection of Waipahu Depot Road and Farrington, with the exception of the Old Town Commercial Area.

#### **3.5.3.6 Circulation Design Guidelines**

- Existing pedestrian connections to nearby residential areas from the old commercial core and to recreational and cultural facilities located around this area should be improved, and new ones developed where appropriate. All pathways should be landscaped in a manner which identifies their role as visual and functional linkages between open spaces and centers of activity. Where possible, they should be designed to accommodate safe movement for walkers, joggers and bicycle riders.
- Landscape improvements to streets and front yards in the Farrington Highway business areas should accommodate, where possible, walkways and bicycle paths which link the different business developments together and connect these areas to adjoining residential neighborhoods.



- Sidewalks, traffic signal improvements, and other measures should be developed to facilitate pedestrian circulation between mauka and makai areas of Waipahu.
- Space for a possible future transit corridor should be reserved along Farrington Highway and higher intensity uses encouraged near future transit nodes along that route.

#### 3.5.3.7 Open Space and Views

- Existing and planned parks and open space areas should, wherever possible, be connected by a series of tree-lined pedestrian pathways, jogging paths and bikeways.
- Visual and physical connections between Waipahu Cultural Garden Park, the old commercial core and significant adjoining areas and roadways should be strengthened.
- Significant views should be preserved, including views of the Koolau and Waianae Mountain Ranges from along Farrington Highway, views of Pearl Harbor from Farrington Highway in the vicinity of Waipahu High School, the view of the Waipahu Sugar Mill from the Waipahu Cultural Garden, and the view of the Waianae Mountains from the Waipahu Cultural Garden.
- Mature trees should be preserved.

### 3.6 WAHIAWA TOWN

Wahiawa's historic role as a stopping point for people traveling to and from the North Shore has been eroding as a result of improvements in the highway system and the residential development of areas around Pearl Harbor and on the Ewa Plain.

Wahiawa's role as a regional center for Central Oahu has been diminished by the development of major new towns and residential areas such as Mililani Town and Melemanu Woodlands. Its commercial areas have had difficulty competing with the shopping centers of the newer communities and the major new "big box" retailers in power centers at Mililani, Waikele, and Pearl City.

Wahiawa has also been affected by the decline in both the pineapple and sugar industry and changes in military force levels at Schofield Barracks and Wheeler Army Airfield.

#### 3.6.1 GENERAL POLICIES

Earlier planning efforts which considered Wahiawa's development include the **Central Oahu/North Shore Regional Plan** (July 1993) and the **Wahiawa Town Master Plan** (1994).

Beginning in 1996, the Planning Department (now the Planning Division of the Department of Planning and Permitting) began working with a Wahiawa Urban Design Task Force, comprised of various community businesses, organizations, and elected representatives to formulate an urban design plan for Wahiawa as part of its Central Oahu *Sustainable Communities Plan* revision program.

Wahiawa and Waipahu had been identified as areas needing Special Area Plans, plans providing more detail than is provided in the *Sustainable Communities Plan* (see Chapter 5). It was agreed that the Special Area Plan for Wahiawa should take the form of an urban design plan.



A number of community meetings and public workshops were held during 1996 and 1997, and in August 1998, the **Wahiawa Urban Design Plan** was transmitted to the City Council. The following general policies are drawn from the **Wahiawa Urban Design Plan** and earlier community-based planning efforts.

**Key Policies.** Wahiawa should build on the strength of its stable and attractive residential areas and protect and enhance its unique characteristics:

**3.6.1.1 Maintain and Enhance Wahiawa’s Plantation Heritage and Rural, Small-Town Atmosphere.** The scale and feeling of Wahiawa as a small town should be maintained. Wahiawa’s plantation heritage and “country town” atmosphere give it a character that is not found in newer master planned communities. Commercial and civic buildings and residential neighborhoods which reflect the town’s plantation heritage and multi-cultural roots should be preserved. The quality of the living environment offered by existing single-family residential areas should be maintained and protected.

**3.6.1.2 Enhance Wahiawa’s Role as a “Gateway” Between Town and Country.** Wahiawa has historically been the boundary between the urban growth of Central Oahu and the broad vistas of the agricultural and rural areas of the North Shore. This role should continue with Lake Wilson and Kaukonahua marking the northernmost extent of urban development in Central Oahu. Appropriate gateway entry features should be established on Kamehameha Highway at both the northern and southern entrances to Wahiawa.

**3.6.1.3 Enhance the Town Core as a Setting for Social, Civic, and Commercial Interactions.** Wahiawa’s State and County offices have historically provided services to both upland Central Oahu and to North Shore communities, and played a role as a regional civic and shopping center. Wahiawa’s civic center should be strengthened by consolidating public services and encouraging the location of more social and community service organizations in the town. In addition, the character and role of Wahiawa’s business area as a community shopping district and regional service center should be maintained and enhanced in order to encourage Oahu residents and visitors to discover what Wahiawa has to offer.

**3.6.1.4 Protect and Enhance Forest and Lake Features.** Wahiawa’s unique forest and lake features should be protected and enhanced. Wahiawa is unique because it is a town surrounded by forest, it has a forest within town in the tree-lined gulch that courses through the center of town, and it borders on Lake Wilson which provides special views and recreational opportunities. Public-private partnerships should be pursued to explore opportunities to redevelop commercial and residential areas on the Town side of the northern and southern gateway entry points (where Kamehameha Highway crosses Lake Wilson) to take advantage of shoreline views and make the shoreline more accessible and enjoyable to the public while reinforcing the integrity of the Wahiawa Town Center.

Exhibit 3.4 shows the town’s business district and civic center, as well as other major land uses within Wahiawa.

### **3.6.2 GUIDELINES**

This section provides guidelines for the development of the business district, civic center, and residential areas; for improvement of circulation; and for preservation of open space and views.

#### **3.6.2.1 Business District**

- Wahiawa’s historic “identity” should be re-established within a “Town Center” located along Kamehameha Highway in the vicinity of California and Kalani Avenue.



- Existing structures that reflect the historic character of Wahiawa should be maintained and restored where possible, and adaptive reuse encouraged where necessary to ensure their continued viability and use.
- Redevelopments should reflect an architectural theme consistent with the historic character of Wahiawa. The architectural character of new buildings and of the building renovations should be compatible with historic buildings in the area and reflect the town's plantation heritage.
- Open space and landscaping should be provided to reinforce the historic character of Wahiawa.
- Distinctive and attractively landscaped gateway features should be established at each of the Kamehameha Highway entries to the town to reinforce a "sense of arrival" along these approaches.
- New commercial uses should be encouraged to in-fill on vacant and underutilized parcels within Wahiawa's existing business district. Expansion of the district is not needed and should be avoided.
- Repair shops, storage and similar uses which provide needed services should continue to be allowed, but should be confined to the town's existing industrial area between Palm and North Cane Street. Buffer landscaping and similar edge treatments should be provided to minimize impacts on adjoining areas.
- Building heights should generally be in keeping with Wahiawa's small town scale. However, some flexibility should be given for public buildings, such as government offices and churches, in order to allow for designs that create symbols of identity for the community.
- The location of parking areas behind commercial establishments should be encouraged in order to improve the pedestrian environment and appearance of the streetscape.
- The visual appearance of business developments should be upgraded through building facade improvement programs and through the greater use of shade trees within parking areas and of landscape buffers between parking areas and adjoining streets.

**3.6.2.2 Civic Center**

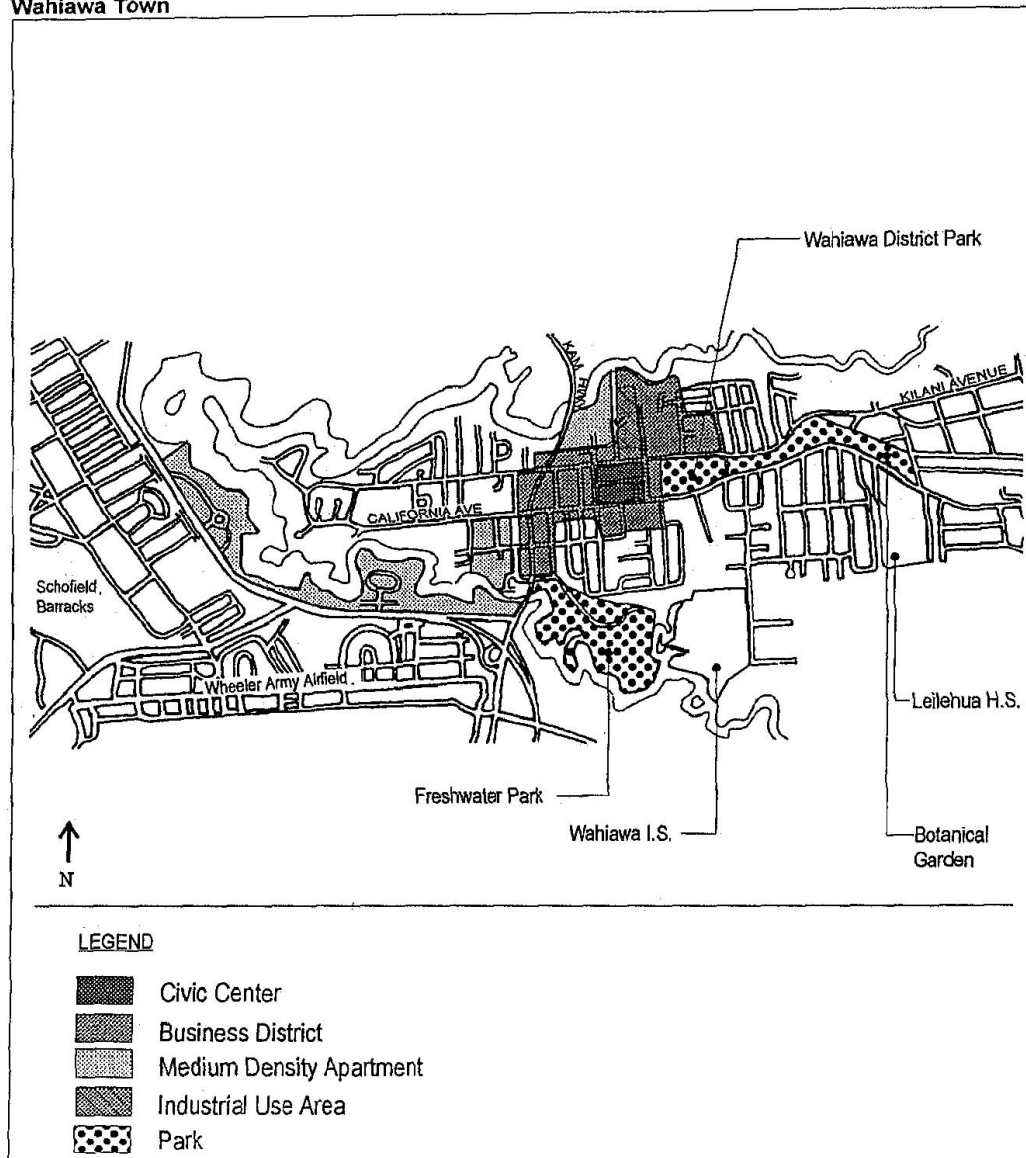
- Expansion of existing government facilities and community services should be welcomed and encouraged. To the extent possible, these uses should be clustered within and bordering the area bounded by California Avenue, North Cane Street, Kilani Avenue and Lehua Street.
- Parking for civic center and Wahiawa General Hospital users should be expanded and consolidated within a multi-level parking garage located on Center Street.
- The Wahiawa Satellite City Hall should be relocated adjacent to the police station.
- Available setback areas and open spaces should be landscaped and developed in a manner which gives the area a unifying visual image and provides a "village green" for informal gatherings and relaxation.

**3.6.2.3 Residential Areas**

- The intrusion of apartment buildings or other incompatible uses into existing single-family residential areas should be prevented.
- The extensive use of street trees to enhance Wahiawa's rural character and image as a "town within a forest" should be maintained and extended into all of its residential areas.



**Exhibit 3.4**  
**Wahiawa Town**



#### 3.6.2.4 Circulation

- Minor adjustments to street rights-of-way, alignments and on-street parking should be made where they would improve traffic flow and safety. In general, however, new streets or major street widenings should be avoided as they are not needed and would detract from Wahiawa's rural and small town character.
- On-street parking should be provided during non-peak traffic hours to "slow-down" traffic along Kamehameha Highway. Where possible, off-street parking should be expanded in areas where the existing supply is inadequate, such as for many of the businesses along Kamehameha Highway.



- A network of bicycle paths and designated bicycle routes should be established along major traffic corridors in order to improve safety and convenience and encourage increased use of bicycles for travel within the community.
- The Wahiawa Botanic Garden should be connected to the Wahiawa Freshwater Park on Lake Wilson by way of a trail through the gulch which connects the two facilities. In addition, jogging paths and bike trails should be developed to take advantage of the Lake Wilson shoreline.
- Landscaping, sidewalk and other streetscape improvements should be made in areas lacking in greenery or with unsafe or inadequate provision for pedestrian traffic.

#### **3.6.2.5 Open Space and Views**

- The natural scenic character of Lake Wilson and adjoining forested areas are vital elements of Wahiawa's "town in a forest" image and should be preserved and protected from alteration or encroachment of urban uses.
- Wahiawa Freshwater Park should be expanded and improved with appropriate facilities which will encourage and accommodate greater public use without major disruption to the site's natural beauty.
- Recreational facilities in existing community parks should be upgraded and, where possible, new facilities added in order to meet current and future demands for sports activities.
- Prominent natural views in Wahiawa involve Lake Wilson and the Waianae Mountains, and, to a lesser degree, the Koolau Mountains. Where possible, site layouts and building orientations for new developments should maximize view opportunities of these areas.
- Significant vistas should be preserved, including the view of the upper Central Oahu plains toward Waialua from the end of Koa Street in Wahiawa.

### **3.7 CENTRAL OAHU PLANTATION VILLAGES**

This section provides general policies, planning principles, and guidelines for preservation and maintenance of the plantation villages at Kunia and Poamoho.

The villages of Kunia and Poamoho, both located in the vast pineapple fields of Central Oahu, are the only two plantation villages in this region that have substantially retained the character and ambiance of a traditional agricultural camp.

As shown in Exhibit 3.5, Kunia Village is located off Kunia Road in the middle of the Del Monte pineapple fields, about one mile south of Schofield Barracks. Exhibit 3.5 also provides a map of Poamoho Village which is located about 1 ½ miles north of Wahiawa in the pineapple fields of north-central Oahu.

#### **3.7.1 GENERAL POLICIES**

At the present time, neither Kunia nor Poamoho seems at risk of significant changes in operation or management. They are likely to be maintained, at least to minimum levels, for the foreseeable future. However, their long-term future currently depends on the future of pineapple production. The villages could also serve a function as affordable housing for workers from new diversified agricultural activities on lands along Kunia Road and north of Wahiawa.

Central Oahu's plantation era heritage and physical reminders of that period are important to preserve as the region becomes urbanized. The existing village structures in the two villages should be rehabilitated or adapted for reuse.



Related affordable housing could be developed to support diversified agricultural employees.

### **3.7.2 PLANNING PRINCIPLES**

Planning principles for the Kunia and Poamoho Plantation Villages include:

**3.7.2.1 Historic Function and Character.** The existing rural forms and historic character exhibited within the villages should be preserved and enhanced. This includes the perpetuation of rural agriculture functions and activities in the surrounding area, in conjunction with village land uses.

**3.7.2.2 Preservation of Historic Structures.** Existing buildings of historical, cultural and/or architectural significance should be preserved.

**3.7.2.3 Housing Affordability.** Where feasible, existing housing units should be retained and rehabilitated in a manner which allows them to remain affordable to the existing residents.

**3.7.2.4 New Development Forms.** The design, visual appearance and placement of any new structures within or adjoining the existing villages, should reflect and complement their original historic character and forms.

### **3.7.3 GUIDELINES**

To implement the general policies and planning principles for the Central Oahu Plantation Villages, the following guidelines should be followed.

#### **3.7.3.1 Method of Preservation**

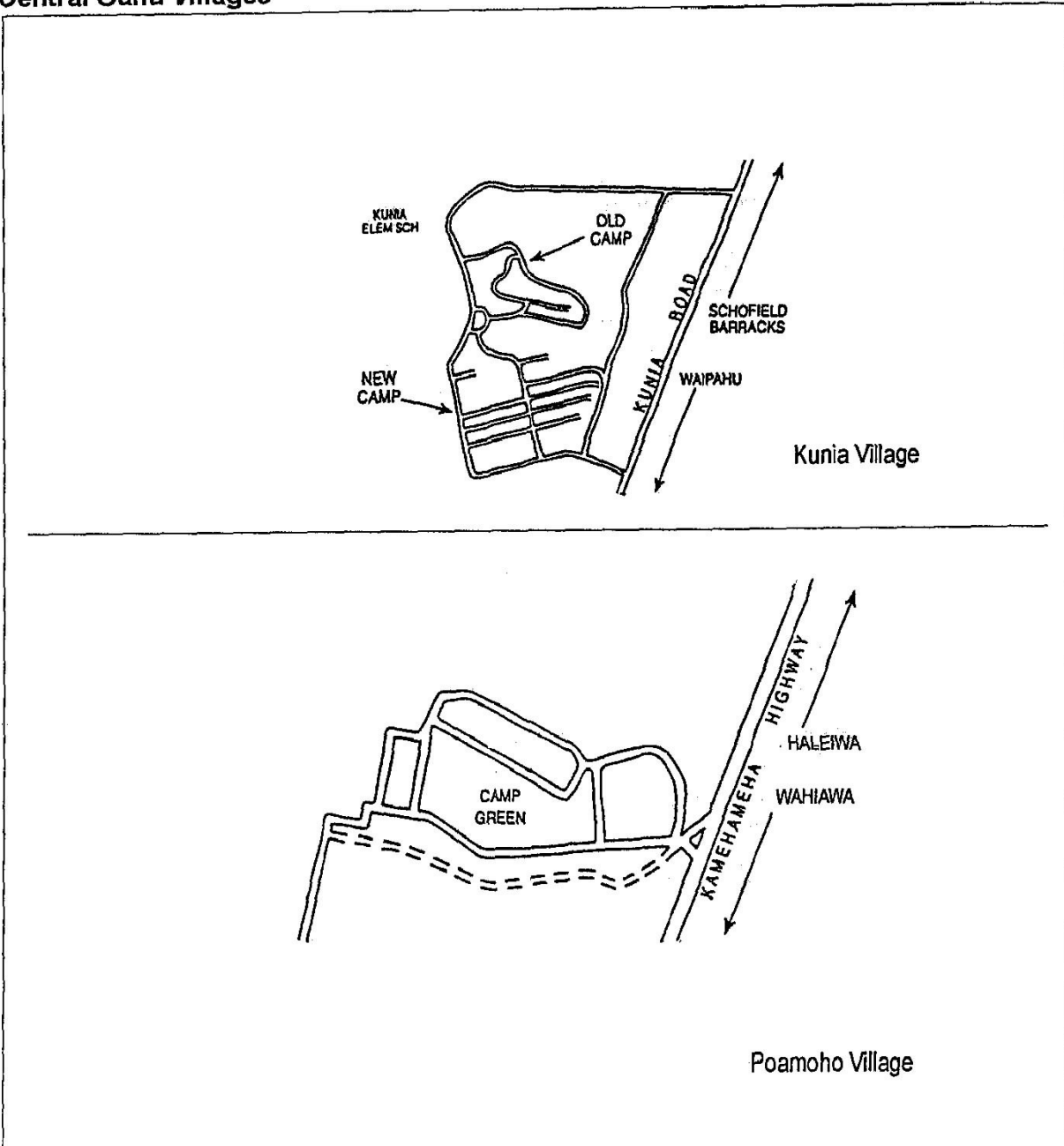
- Existing historic plantation houses should be rehabilitated as part of an assisted housing program.
- Rental dwellings should be rehabilitated and converted for sale, giving preference to existing residents to minimize displacement and retain the sense of community.
- The historic development pattern, architectural character and street appearance should be preserved by varying conventional subdivision and other development codes, as appropriate.
- Structures that must be razed should be replaced, and other vacant areas developed with new in-fill development that respects the historic character of the original village.

#### **3.7.3.2 Adaptive Reuse**

- Residential areas should be rehabilitated with an emphasis on affordable home ownership opportunities for existing residents.
- When a historic structure is converted to a use other than its original purpose, rehabilitation should be done in a manner that does not alter its exterior appearance.



**Exhibit 3.5**  
**Central Oahu Villages**





**3.7.3.3 Urban Form**

- The current grid street pattern should be maintained in the existing villages and replicated in new in-fill development.
- The standard subdivision street hierarchy and design standards should not be used. Narrow street widths without sidewalks should be maintained in the residential portions of existing villages and established in new villages to minimize impacts on front yards and structures and retain a rural village character.
- Any new collector streets should be located in between and not within existing villages.
- Principal entry roads to and through the villages should be tree-lined boulevards. Entries should be highlighted with landscape features.
- Appropriate canopy trees should be provided along all street frontages.
- Lot sizes and dimensions for new in-fill homes in the existing villages should be similar to those of existing house lots.
- New structures on vacant lots in the existing villages should complement the exterior design of adjacent homes.
- Yards and other open spaces should be landscaped and maintained in a manner which preserves and enhances the open space appearance of the villages.

**3.7.3.4 Open Space/Views**

- Existing village greens and playfields should be preserved and maintained as places for community gatherings and recreation.
- Existing landscaping within the villages and stands of trees in bordering ravines should be preserved.

**3.7.3.5 Adjacent Land Uses**

- Agricultural use should be maintained on adjacent lands.
- The visibility of any new structures in the vicinity should be minimized by appropriate landscape screening and building siting. If visibility is unavoidable, the new structure should be designed to respect the scale and character of the villages.

**3.7.3.6 Public Access**

- Since the preservation concept is to perpetuate and revitalize a living community, public access should be the same as for other communities.

**3.8 EXISTING AND PLANNED RESIDENTIAL COMMUNITIES**

This section provides general policies and guidelines for the development of new communities and the expansion or renovation of existing communities.

**3.8.1 General Policies**

The following general policies may be applied to the expansion or renovation of existing residential communities, as well as to new communities.



**3.8.1.1 Overall Density.** To achieve the desired compactness and character of development in planned residential communities, the housing density of the aggregate area zoned for residential use (including the streets) should be in the range of 10 to 15 units per acre. (This average does not include areas zoned for commercial or industrial use.)

Table 3.2 gives an overview of the density and height guidelines for planned and existing residential developments.

The conceptual locations for residential, and low and medium density apartment development are shown on the Urban Land Use Map in Appendix A. See Section 3.8.3 for further discussion of the Urban Land Use Map.

<b>TABLE 3.2: DENSITY AND HEIGHT GUIDELINES BY RESIDENTIAL DENSITY CATEGORY</b>		
<b>Residential Category</b>	<b>Density (Housing Units)</b>	<b>Building Height</b>
Residential	5-12/acre	not over two stories
Low Density Apartment	10-30/acre	not over three stories
Medium Density Apartment <sup>1</sup>	25-90/acre	not over 60 ft <sup>2</sup>
<sup>1</sup> Medium Density Apartment uses are appropriate in the Medium Density Residential/Commercial mixed use areas around the two transit nodes in Waipahu, in the Wahiawa Regional Town Center, and adjacent to the Waiawa Major Community Commercial Center.  <sup>2</sup> Medium Density Apartment building heights in the transit node area centered on the Waipahu Depot Road and Farrington Highway intersection should not exceed the lower of the elevation of the roof ridge line of Waipahu Sugar Mill or 60 feet.		

**3.8.1.2 Higher Density Housing Along the Waipahu-Kapolei Transit Corridor.** To promote use of mass transit, higher-density residential use should be developed along a major rapid transit corridor linking Waipahu with Kapolei in the west and with Primary Urban Center communities to the east. Medium Density Apartment and Commercial mixed uses should be developed at two transit nodes, which would cover a one-quarter-mile radius around major transit stops. Areas along the rapid transit corridor should have housing densities of 25 units per acre, and greater densities are expected within the transit nodes. See Exhibit 3.3 and the Urban Land Use Map and the Public Facilities Map in Appendix A for location of the transit nodes in Waipahu.

**3.8.1.3 Physical Definition of Neighborhoods.** The boundaries of neighborhoods should be made evident through the use of street patterns, landscape or natural features, and building form and siting. The focus of neighborhood activity should be on the local street or a common pedestrian right-of-way or recreation area.

Where urban development abuts the H-2 Freeway, an open space/landscaped buffer of sufficient size should be provided to preserve a view of green, minimize the visual intrusiveness of the development, and reduce the noise and air quality impact of the freeway traffic on the abutting development.

**3.8.1.4 Compatible Mix of Building Forms.** There should be a variety of housing types and densities to avoid visual monotony and accommodate a variety of housing needs, but without sharp contrasts between the exterior appearance of adjacent housing areas.

**3.8.1.5 Transit-Oriented Streets.** Street patterns and rights-of-way should be designed to accommodate mass transit (bus) service and make it convenient to access for as many households as possible.



**3.8.1.6 Pedestrian and Bicycle Travel.** Pedestrian and bicycle travel should be encouraged, particularly to reach neighborhood destinations such as schools, parks and convenience stores.

**3.8.1.7 Integration of Linear Corridors.** Physical and visual connections between communities should be encouraged through the creative design of transportation and utility corridors and drainage systems.

**3.8.1.8 Provision of Community Facilities.** Land should be provided for community facilities including churches, community centers, and elderly and child care centers.

### **3.8.2 GUIDELINES**

Guidelines to implement the general policies are provided below.

#### **3.8.2.1 Residential**

Residential areas consist of one- and two-story, single-family attached and/or detached dwellings with individual entries.

##### **Density**

- Residential density should be 5 to 12 units per acre, typical of residential zoning districts and allowing the application of optional design standards for Clusters and Planned Unit Developments.

##### **Building Height**

- In general, buildings should not exceed two stories, although the height may vary according to required flood elevation, slope, and roof form.

##### **Site Design**

- The site design for small-lot developments should avoid monotonous rows of garages and driveways along neighborhood street frontages by employing features such as varied building setbacks and shared driveways.

##### **Building Form**

- Buildings should provide visual interest and individual identity by using varied roof forms, exterior colors and finishes, building orientation, floor plans and architectural details.

#### **3.8.2.2 Low Density Apartment**

Low Density Apartment areas consist of two- and three-story townhouse or low-rise apartment buildings. Dwelling units may have common entries, but buildings are typically non-elevator structures.

##### **Density**

- Low Density Apartment density should be 10 to 30 units per acre.



**Height**

- In general, buildings should not exceed three stories above grade. Maximum building heights should allow for pitched roof forms.

**Building Form**

- Building form, orientation, location of entries and landscape screening should be employed to maintain a sense of residential scale and provide greater privacy and individual identity for housing units.

**Compatibility**

- Building scale, roof form and the quality of materials should be compatible with those of adjacent low-density residential areas.

**3.8.2.3 Medium Density Apartment**

Medium Density Apartment developments take the form of multi-story apartment buildings. They may be located in mixed-use zones, with the ground floor or lower floors occupied by retail and service commercial uses.

**Location**

- Medium Density Apartment is intended to be the predominant form of housing near two transit nodes in Waipahu on the planned rapid transit corridor, either as a single use or mixed use development.
- Medium Density Apartment is also appropriate in Wahiawa near the Town Center, and in Waiawa adjacent to the Major Community Commercial Center.

**Density**

- Allowable building density should accommodate 25 to 90 units per acre.

**Height**

- Building heights should not exceed 60 feet.
- In Waipahu, Medium Density Apartment building heights in the transit node area centered on the Waipahu Depot Road - Farrington Highway intersection should not exceed 60 feet or the elevation of the roof ridge line of the Waipahu Sugar Mill, whichever is lower.

**Architectural Character**

- The building scale, roof form and the quality of materials may reflect a more urban character.

**Height Setbacks**

- Building height setbacks and landscaping should be employed to reduce the direct visibility of taller buildings from lower density residential areas and from the streetfront. Lower building elements may directly abut the streetfront.



### 3.8.2.4 Circulation System

Master-planned projects should each have a circulation plan, or a “circulation element” in their Project Master Plan.

#### **Transit Routes and Facilities**

- The circulation plan should define the hierarchy of streets within the project and its relationship to the surrounding transportation network.
- The circulation plan should also indicate existing and proposed bus routes and specific measures to accommodate efficient transit service for as many households as possible.
- Street patterns showing the alignment of proposed transit routes should be submitted to the department of transportation services at the first stage of the site development planning process.
- Potential transit routes should be identified by the developer such that at least 85 percent of all proposed residential housing units are within 1/4 mile of a proposed transit stop, unless localized topographic conditions make such a requirement impractical.
- All commercial development with more than 1,000 square feet and all employment sites with more than ten employees should be within 1/8th mile of a transit stop.
- All development should be within 1/2 mile of a transit stop, unless localized topographic conditions make such a requirement impractical.
- The developer should construct all necessary transit stops in accordance with DTS design standards.
- Proposed transit routes should have two different access points into the proposed development. The route alignment should seek to achieve optimal operational efficiency between the two access points.
- The rights-of-way along transit routes should make provisions for bus shelters, bus pull-outs, and, if applicable, park-and-ride facilities and/or future transit stations.

#### **Pedestrian and Bicycle Routes and Facilities**

- The circulation plan should indicate any principal pedestrian and bicycle paths that are physically separated from roadways.
- Street intersections along these separated paths should have a narrow curb radius and include special signage and paving to encourage safe and convenient pedestrian and bicycle crossings.
- Interior pedestrian/bicycle routes may be provided as an alternative to paved sidewalks along local streets.

#### **Landscape Treatment**

- Conceptual street tree plans should be indicated in the circulation plan.
- Entries to the community should be identified with special landscape treatment.
- The rights-of-way for major arterials and major collector streets should be designed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. Major arterials should have separate bike paths, and major collectors should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for major collectors is 100 feet wide.
- Where urban development abuts the H-2 Freeway, an open space/landscaped buffer of sufficient size should be provided to preserve a view of green, minimize the visual intrusiveness of the development, and reduce the noise and air quality impact of the freeway traffic on the abutting development.
- Canopy trees should be planted to shade the sidewalk/bikepath areas.
- Landscape treatment along the edges of the project should be appropriate for the natural setting and designed to provide continuity and transition from adjacent developed areas.



### 3.8.3 Relation to Urban Land Use Map

Residential areas are shown on the Central Oahu Urban Land Use Map in Appendix A as follows:

**Residential and Low Density Apartment.** Areas with this designation should be zoned as a residential or a low-density apartment district, subject to appropriate siting considerations and the General Policy for “Overall Density” provided above in Section 3.8.1.

**Medium Density Residential/Commercial Mixed Use.** Areas with this designation should be zoned predominantly for medium-density apartment use. Mixed use, with retail activities at the ground level, is encouraged.

**Uses Allowed in All Residential Areas.** The following uses are not specifically designated on the Urban Land Use Map but can be located in all residential areas:

- Neighborhood commercial centers
- Elementary schools
- Parks
- Churches
- Community centers
- Elderly care centers
- Child care centers
- Fire stations, and other public facility and utility uses serving the area.

## 3.9 PLANNED COMMERCIAL RETAIL CENTERS

This section provides general policies, planning principles and guidelines for the development of commercial retail centers in Central Oahu.

### 3.9.1 GENERAL POLICIES

Planned commercial centers, outside of Waipahu and Wahiawa, should provide retail shopping and services for the Central Oahu residential communities in which they are located. These centers differ from commercial areas within towns such as Waipahu or Wahiawa because they are typically managed as a unit with shared parking and center management.

Commercial centers outside of Waipahu and Wahiawa should concentrate commercial uses in central locations instead of in continuous commercial strips along arterial roads. Pedestrian and transit access to and within the centers should be emphasized.

**3.9.1.1 Definitions.** Four types of commercial centers can be defined based on size and function:

- **Neighborhood Commercial Center** (5-10 acres or less, typically located within or adjacent to residential area, up to 100,000 square feet [sq. ft.] of floor area);
- **Community Commercial Center** (10-30 acres, typically located on an arterial highway or at the intersection of two major collector streets, up to 250,000 sq. ft. of floor area);
- **Major Community Commercial Center** (up to 50 acres, located in communities which are not near an urban center, up to 500,000 sq. ft. of floor area); and



- **Regional Commercial Center** (more than 50 acres, located with frontage on a major arterial highway and access from freeway interchange, more than 500,000 sq. ft. of floor area).

**3.9.1.2 Neighborhood Commercial Center.** Neighborhood Commercial Centers can be located within any residential community, and should be reviewed and approved as part of master planned residential communities or redevelopment plans of existing communities. Neighborhood Commercial Centers have frontage on at least one collector street, and may have up to 100,000 square feet of floor area, which is leased to tenants such as grocery stores, sundries stores and other services and shops catering to common household needs.

Single commercial establishments, such as convenience stores or “Mom and Pop” stores, or groupings of stores smaller than five acres in size also fall within this category, provided that they are appropriately located and will not contribute to the evolution of a commercial strip.

**3.9.1.3 Community Commercial Center.** This type of center principally serves the community in which it is located, providing for basic shopping and service needs on a larger scale than the neighborhood center. Community Commercial Centers may contain up to 250,000 square feet of floor area, and major attractions typically include a large grocery store, a drug store, and/or a department store. The other, smaller tenants in the center are largely dependent on the effectiveness of the major tenants to draw customers. Examples of this type of commercial center include the Gentry Waipio Shopping Center and the Mililani Shopping Center.

Locations for four existing and planned Community Commercial Centers are shown on the Urban Land Use Map for Mililani, Mililani Mauka, Waipio, and Royal Kunia.

**3.9.1.4 Major Community Commercial Center.** Major planned communities not located near an urban center may need a larger commercial center. The Major Community Commercial Center provides for many of the same community shopping needs as the standard Community Commercial Center, but, due to its larger market, it is able to support more large stores and a wider variety of small retail and service commercial tenants. The Major Community Commercial Center occupies up to 50 acres and contains up to 500,000 square feet of floor area.

An existing Major Community Commercial Center is shown on the Urban Land Use Map at Mililani and a planned Major Community Commercial Center at Waiawa. The planned Waiawa center should be developed to support the residential communities surrounding Waiawa and not to become a regional center drawing shoppers from other parts of Oahu.

**3.9.1.5 Regional Commercial Center.** Waikale is the only Regional Commercial Center shown for Central Oahu. No new Regional Commercial Centers are indicated for Central Oahu. The planning objective is to withhold development that would compete with the objective of redeveloping the commercial areas of Waipahu and Wahiawa and developing regional shopping attractions in the City of Kapolei.

**3.9.1.6 Office Uses.** Office uses should not be a principal use in Central Oahu Major Community and Community Commercial Centers. Offices which provide services to the local community may be included in the centers, but the emphasis of Central Oahu Community Commercial Centers should be on retail uses. These limitations on office uses are specifically applicable to Waiawa so as to promote the development of office uses in the Secondary Urban Center and in Waipahu.

In Central Oahu, developments primarily oriented to office uses should be located in Waipahu, Wahiawa, or at either the Mililani Technology Park or Koa Ridge Medical Park. (Offices at the Mililani Technology Park should be developed at low densities typical of campus-like business parks.)



### 3.9.2 PLANNING PRINCIPLES

Planning principles for retail centers vary according to the size of the commercial center and the purpose it serves.

**3.9.2.1 Mix of Uses.** Planned commercial centers should be dedicated primarily to retail uses and to accessory office uses that provide services to the surrounding community. Residential uses and other uses which meet the social, cultural, recreational, and civic needs of the surrounding community may also be incorporated in such commercial centers.

**3.9.2.2 Appropriate Scale.** The building mass of a commercial center should be in keeping with its urban and natural setting. In the case of major community commercial centers, the visibility of large building volumes and expansive parking areas should be minimized through site planning, architectural treatment of elevations and landscaping.

**3.9.2.3 Compatible Style.** The architectural character of commercial centers should respect the surrounding urban and natural features, particularly when located adjacent to a residential area or significant natural or historic feature. Neighborhood commercial centers should reflect a residential architectural character.

**3.9.2.4 Accessibility.** Commercial centers should incorporate site design and facilities to promote pedestrian, bicycle and transit access. Pedestrian and bicycle access is more important for smaller, neighborhood centers, while transit access is more significant for community centers.

**3.9.2.5 Community Commercial Centers as the Hub of Their Communities.** In addition to being a commercial center, Community Commercial Centers can help create communities out of residential developments by playing the role of meeting place, and of recreational, social, cultural, and civic center that the town square and Main Street play in traditional towns.

These planning principles should be applied to the expansion or renovation of existing commercial centers, as well as to new centers.

### 3.9.3 GUIDELINES

The following guidelines would help implement the policies and principles listed above.

#### 3.9.3.1 Neighborhood Commercial Centers

##### **Architectural Character**

- The architectural character should respect adjacent residential uses.
- Gable and hip-form roofs are encouraged, using breaks in the roof line to reduce the apparent scale of large roof plates.
- Residential character may also be expressed by using exterior materials and colors that are typically found in residential construction.

##### **Building Siting**

- Buildings should be oriented to the pedestrian.
- Storefronts should face the street and, to the extent possible, be sited close to the sidewalk.



- Parking and service areas should be placed behind the buildings or otherwise visually screened from streets and residential areas.

**Building Height and Density**

- Buildings should maintain a residential scale.
- Building height limits should allow for gable and hip-form roof elements.
- The total floor area for a lot or contiguous lots with common parking should not exceed 100,000 square feet

**Vehicular Access**

- Access to the parking and loading areas should be from a collector street.
- Access to a local residential street may be permitted if it is only for emergency or secondary access and would not encourage through traffic along the local street.

**Pedestrian and Bicycle Facilities**

- There should be at least one pedestrian access from the public sidewalk or other off-site pedestrian pathway to the entrances of establishments in the commercial center that does not require crossing a traffic lane or parking lot aisle or driveway.
- Bicycle racks should be designed to provide security and be visible from the street entry.

**Visual Screening, Lighting & Signage**

- Parking and service areas should be screened from the street and adjacent residential lots by planting a landscape screen of trees and hedges along street frontages and property lines and planting shade trees throughout the parking lot.
- Only low-level lighting or indirect lighting, if any, should be used in parking lots.
- All signage should be unilluminated or indirectly illuminated.

**3.9.3.2 Community Commercial Centers**

The following guidelines apply to both the standard Community Commercial Center and the Major Community Commercial Center.

**Architectural Character**

- The architectural character may be varied, depending on the context.
- Commercial center buildings that are visible from adjacent residential areas should reflect a residential character; other facades may have a character more typical of a commercial building.
- The design should avoid disruptive contrasts between facades that are visible simultaneously from public areas.



**Building Bulk and Massing**

- When the building is adjacent to a residential area or a building of historic value, there should be a transition in scale from larger building elements of the commercial center to finer elements near the adjacent use.
- Portions of buildings visible from a street should avoid blank facades by using texture, articulation, color and fenestration to create visual interest.
- Facades that are close to the public right-of-way should be composed of display windows and pedestrian entrances.

**Building Height and Density**

- Building heights should generally not exceed 45 feet.
- The total floor area should not exceed 250,000 square feet for a standard Community Commercial Center and 500,000 square feet for a Major Community Commercial Center.

**Pedestrian, Bicycle and Transit Facilities**

- Street frontage improvements for bus stops, including a bus shelter and a pull-out off a traffic lane, should be provided along all abutting streets which have bus routes.
- There should be a pedestrian pathway from the bus stop to the nearest entrance of the nearest building of the commercial center. The pathway should be clearly indicated with special paving or markings and covered to provide weather protection, if the commercial center building is not directly connected to the bus shelter.
- Bicycle racks should be designed to provide security and be visible from the street entry to the commercial center.

**Visual Screening**

- The visibility of parking and service areas from the street and adjacent residential areas should be minimized through screening.
- A landscape screen, consisting of trees and hedges, should be planted along the street fronting the parking lot or garage.
- If there is a parking lot, shade trees should be planted throughout.
- If there is a parking garage close to and readily visible from a street, landscape planters should be provided along the facade of each parking level fronting the street.
- Service areas should be visually screened from public and residential areas.

**Signage**

- Signage visible from residential areas should be indirectly illuminated.

**3.9.3.3 Transit Access**

- All commercial development with more than 1,000 square feet and all employment sites with more than ten employees should be within 1/8th mile of a transit stop.



### 3.10 INDUSTRIAL CENTERS

This section provides general policies, planning principles, and guidelines for development of industrial centers and industrial uses in Central Oahu.

#### 3.10.1 GENERAL POLICIES

Major industrial uses and utility plants on Oahu are meant to be located in the Primary Urban Center or Ewa. However, there is a need for limited industrial development in Central Oahu to accommodate services and storage for surrounding residential communities.

Existing industrial areas in Central Oahu include areas in Waipahu makai of Farrington Highway (94 acres) and in Gentry Business Park in Waipio (127 acres), while new industrial areas are planned for Royal Kunia (123 acres) and Waiawa (40 acres). An expansion of Mililani Technology Park is expected to attract mostly high-technology office uses seeking a campus-style setting similar to the character of Phase I.

Small lots should also be made available in Waipahu and Wahiawa for industrial small businesses, particularly automobile repair shops, contractors' yards, "incubator" businesses, and businesses which serve residential and commercial areas, but not on the main commercial streets.

#### 3.10.2 PLANNING PRINCIPLES

The general policies for industrial centers in Central Oahu are supported by the following planning principles:

**3.10.2.1 Appropriate Scale.** The visibility of large building volumes and tall building or machinery elements from arterial roads, major regional collector roads, residential areas, commercial and civic districts, and parks should be minimized through site planning and landscaping.

**3.10.2.2 Environmental Compatibility.** Operations that discharge air or water pollutants, even when treated, should be located in areas where they would impose the least potential harm on the natural environment in case the treatment process fails to perform adequately. Uses that generate high noise levels should be located and operated in a way that will keep noise to an acceptable level in existing and planned residential areas.

**3.10.2.3 Siting.** Industrial areas located within residential communities should be buffered from residential uses, so that larger industrial building forms do not have a negative visual impact on residential areas.

#### 3.10.3 GUIDELINES

Based on the above planning principles, the following are guidelines for development:

##### 3.10.3.1 Uses

- Uses allowed in Central Oahu industrial areas should include all those which may provide direct services within adjacent residential communities, including automobile service and repair.
- The following heavy industrial uses should not be allowed:
  - petroleum processing,
  - resource extraction, and
  - the manufacture of chemicals and explosives.



Other industrial uses may be allowed based on performance criteria established by regulatory agencies.

- Retail establishments should be allowed as accessory uses only.
- Offices and business services may be allowed in a building or complex of buildings which primarily consists of industrial uses and industrial building types. No building should be primarily used for offices or business services.

### **3.10.3.2 Location**

- Industrial areas may be located within the master-planned communities of Waipio-Gentry, Royal Kunia and Waiawa.
- Industrial areas oriented to small businesses providing consumer services should be maintained within Wahiawa (north of Cane Street) and Waipahu, but should not front on commercial streets or major collector streets; provided that designation of use areas is subject to redefinition through Special Area Plans for those towns.
- New industrial developments should not front on streets with residences on the opposite side, and should, to the extent possible, direct industrial traffic away from residential neighborhoods.

### **3.10.3.3 Building Height**

- Building heights should generally not exceed 60 feet, except that taller vertical structures are acceptable when required as part of an industrial operation.

### **3.10.3.4 Landscape Treatment**

- Landscaped setbacks and street trees should be required along the edges of industrial areas abutting arterial or major collector streets.
- In small-lot industrial areas, outdoor work and storage areas for vehicles, equipment and supplies should be visually screened from the street and adjacent lots by privacy walls and buildings, with minimal reliance on landscaping.
- In large-lot industrial subdivisions, visual screening should be accomplished primarily with landscaped setbacks and street trees.

## **3.10.4 RELATION TO URBAN LAND USE MAP**

Industrial zoning should generally be limited to those areas shown as “Industrial” on the Urban Land Use Map in Appendix A, including those portions of military bases where operations of an industrial character occur. Industrial zoning may, however, be granted for an individual activity which, because it is a public transportation or utility use or because of its unique characteristics, is unable to locate in a planned industrial area.

## **3.11 MILILANI TECHNOLOGY PARK**

This section provides general policies, and planning principles for development of Mililani Technology Park.

### **3.11.1 GENERAL POLICIES**

Mililani Technology Park (MTP) is a unique development located on a strip of land north of Mililani and east of the H-2 Freeway. It is bounded on the north by Leilehua Golf Course and other military lands and on the south by the upper part of Waikakalaua Gulch



MTP was originally envisioned as a means for attracting “clean” high technology research and development industry to Oahu and expanding the City’s economic base. At least 45 percent of either the area of all the lots or the total number of lots are required under existing approvals to initially be sold or leased to and occupied by high technology firms and businesses.

Phase II of MTP adds 135 acres of Commercial/Industrial Emphasis Mixed-Use lands to the 103 acres in Phase I.

MTP should offer a place where high technology industries such as electronics firms, computer software developers, and biotechnology firms and their support services may locate in a campus-like business park setting.

In addition, MTP could also be developed for appropriate and compatible commercial and industrial uses which desire fee simple lots and can conform to the low density campus design of MTP.

### **3.11.2 PLANNING PRINCIPLES**

The following planning principles implement the general policies for development of Mililani Technology Park:

#### **3.11.2.1 Uses**

- Mililani Technology Park should be primarily intended for emerging technology-intensive industries, including but not limited to electronics and biotechnology and support services.
- Individual lots should be able to mix light industrial uses with office use, with no limitation on the allocation of floor area.
- Retail and service uses supporting activities in the business park should be limited to ten percent of the total floor area of the business park.
- The following should not be permitted in the business park:
  - Uses that produce noise and noxious emissions;
  - Uses connected with agricultural production;
  - Large-scale retailing/wholesaling operations such as factory outlets, department stores, home improvement centers, warehouse outlets and similar commercial activities; and
  - Dwelling units or overnight accommodations of any kind.

#### **3.11.2.2 Building Height and Density**

- Building heights should generally not exceed 40 feet, except for necessary communications antennae.
- The floor area ratio and maximum building coverage permitted on lots should be appropriate to an open, landscaped campus environment.

### **3.11.3 RELATION TO URBAN LAND USE MAP**

The Mililani Technology Park is shown as “Technology Park” on the Urban Land Use Map.

## **3.12 MILITARY AREAS**

This section contains general policies, planning principles, and guidelines regarding military areas in Central Oahu.



### **3.12.1 General Policies**

The major military bases of Schofield Barracks/Wheeler Army Airfield and Pearl Harbor Naval Base are expected to remain, but they are not expected to expand beyond their existing boundaries. City policies regarding the two areas are provided below.

#### **3.12.1.1 Schofield Barracks/Wheeler Army Airfield**

Schofield Barracks/Wheeler Army Airfield supports the 25th Infantry Division and consequently has large areas committed to residential use, including commercial and recreational facilities. The bases also support quasi-industrial uses including operation and maintenance of heavy equipment and helicopter airfield operations and maintenance.

In addition to these urban uses, the base also includes large areas of open space, most of which is used for infantry training. These areas extend beyond the Urban Community Boundary. One area is west of Schofield Barracks urban areas, extending to the Waianae Mountains, and a second area known as the East Range extends south and east from Wahiawa to the Koolau Mountains.

The Army operates a 4.2 mgd secondary wastewater treatment plant located at Wheeler Army Airfield that treats flows from Schofield Barracks, Wheeler Army Airfield, Helemano Military Reservation, and the East Range. Effluent from the plant is currently discharged into an irrigation flume owned by the Waialua Sugar Company (WSC). The Army has entered into a seven-year lease with Dole Foods to use 2,970 acres for effluent irrigation, and wants to implement a long-term solution to the disposal of effluent from its plant.

The Army has prepared an Environmental Impact Statement and is reviewing alternative treatment options for its plant.

#### **3.12.1.2 Pearl Harbor Naval Base (Waipio Peninsula)**

Most of the Waipio Peninsula lies within the Explosives Safety Zone of the West Loch Naval Magazine. Waipio Peninsula lands have been used mostly for sugar cultivation in the past. The City supports continued use of these lands for diversified agriculture or aquaculture activities. In addition, a portion of the northernmost part of the Waipio Peninsula will be used for active recreation playing fields in conjunction with a new soccer complex built on the adjacent area.

The City should request expansion of limited public access to the shoreline waters of West Loch beyond the West Loch Shoreline Park and should support retaining and enhancing wetland areas along the Pearl Harbor shoreline.

### **3.12.2 PLANNING PRINCIPLES**

The general policies and the guidelines for circulation systems and landscape treatment for residential communities (described above in Section 3.8) should be applied to military lands in residential use.

The planning principles for industrial areas (described above in Section 3.10) should be applied to the quasi-industrial uses on lands designated “Military.”



### **3.12.3 GUIDELINES**

The following guidelines should apply to development on the two bases, and where appropriate, in areas adjacent to the bases. The City will request the department of emergency management consider them in planning for development at each of the bases:

#### **3.12.3.1 Schofield Barracks/Wheeler Army Airfield**

- Uses within the base should include residential, commercial, recreational, and civic areas for the support of military personnel and their dependents and may be expanded to accommodate additional residents on base or augmented activities which do not significantly conflict with surrounding residential communities.
- The visibility of security fencing and utilitarian military facilities from off-base should be minimized through the planting of a landscape screen, consisting of trees and hedges, along highway frontages.
- Adequate buffers should be provided for residential developments immediately adjacent to the Central Oahu training areas to ensure that residents will not be adversely impacted by noise or other environmental impacts of the training activities.

#### **3.12.3.2 Pearl Harbor Naval Base**

- Limited public access to the shoreline waters of West Loch for recreational purposes should be expanded beyond the West Loch Shoreline Park.
- Wetlands along the West Loch and Middle Loch shorelines should be protected and enhanced.
- Agricultural uses should be continued on the Waipio Peninsula in the West Loch Naval Magazine Blast Zone.

### **3.12.4 RELATION TO URBAN LAND USE MAP**

The “Military” designation on the Urban Land Use Map shows those parts of military bases planned primarily for military activities which are quasi-industrial in nature. Areas used by the military for typical urban activities are shown according to their planned use. Portions of military installations that are planned to remain in open space are represented as on the Open Space Map as “Military Training Areas,” “Preservation,” “Agriculture,” and “Drainageways/Gulches.”

## **4. PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND PRINCIPLES**

This chapter sets forth policies and principles to guide the planning and construction of proposed public and private public facility projects and infrastructure systems to carry out the vision for the future development of Central Oahu, as described in Chapter 2.

Information on timing and phasing of both planned and proposed infrastructure and public facilities projects available during plan preparation is also included. However, each project proposal is only identified and presented conceptually; not on a site-specific basis. More detailed information on the specific need, route alignment, site boundaries, capacity and other specifications for each project, as applicable, will be prepared at the master planning stage which precedes approval of actual development.